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ABSTRACT

AN INVESTIGATION OF DIFFERENTIAL ATTITUDES TOWARD THE PHYSICALLY HANDICAPPED, BLIND PERSONS, AND ATTITUDES TOWARD EDUCATION AND THEIR DETERMINANTS AMONG VARIOUS OCCUPATIONAL GROUPS IN THE STATE OF KANSAS

by Robert Francis Dickie

The major focus of the study was on the relationship between interpersonal values, personal contact, attitudes, and certain demographic variables. The assumption was made that both value and contact serve as determinants of attitudes.

The study was conducted in Wichita, Kansas in 1965.[1] A battery of six research instruments consisted of: (a) attitudes -toward-education scale, (b) the Gordon Survey of Interpersonal Values, (c) the personal questionnaire, (d) attitudes-toward-handicapped-persons scale, (e) the personal questionnaire (handicapped persons), and (f) attitude-toward-blind-persons scale. Respondents were selected from known occupational groupings in society: (a) special education and rehabilitation (SER), (b) regular education, (c) managers and executives, and (d) laborers (white and blue collar workers).

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

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The test battery was administered to 391 adults (182 males and 209 females) from Wichita, Kansas. Administration time for the battery was approximately two hours.

The theoretical reference for hypothesis construction was social-psychological, specifically relating to intergroup attitude as influenced by interpersonal values and contact variables such as frequency, enjoyment, and ease of avoidance. As predicted, there was a significant positive relationship between contact frequency and favorable attitude scores toward both handicapped persons and blind persons specifically. However, the hypothesis relating to contact frequency and progressive and traditional attitudes toward education were not supported.

It was hypothesized that the more frequent the contact with disabled persons and with education, both progressive and traditional, the more intense would be the attitude statements toward disabled persons and education, regardless of whether attitude content was favorable or unfavorable. This hypothesis was not confirmed.

It was also hypothesized that the SER group would be characterized by an asset value orientation rather than a comparative value orientation in terms of the way that physical disability was viewed. The Benevolence sub-scale of the Gordon Survey of Interpersonal Values was used as a measure of asset value orientation while the Leadership and Recognition sub-scales were used to measure comparative value orientation. The SER group did tend to score significantly <u>lower</u> on the Leadership value than other

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occupational groups. No significant group differences were found on either the Benevolence or Recognition value scores.

It was further hypothesized that the SER group would have more favorable attitude scores on the attitude-toward-disability scale, on the attitude-toward-blindness scale, and on the progressive-attitude-toward-education scale. It was hypothesized that the SER group would score lower on the traditional-attitude-toward-education scale. It was found, as predicted, that the SER group did tend to demonstrate significantly more favorable attitudes toward the blind, toward progressive education, and less favorable attitudes toward traditional educational practices. No significant group differences were found for attitudes toward the disabled.

Two further hypotheses were related to change orientation variables such as health practices, child rearing practices, birth control practices, automation, political leadership, and self change. It was found that persons who scored high on these change orientation variables also demonstrated significantly more positive attitudes toward disabled persons, blind persons, and toward progressive education practices. Persons scoring high on these variables, also held less favorable attitudes toward traditional education practices.

Two final hypotheses were concerned with the relationship between attitudes and the respondent's primary contact groups.

It was hypothesized that persons with primary educational experience at the elementary level would hold more positive attitudes toward disabled and blind persons than would persons whose primary experience had been at other levels of education. It was also hypothesized that persons with primary contact with the blind versus other types of physical handicaps would hold more positive attitudes toward the blind. Neither of the above hypotheses were confirmed.

Statistical techniques included analysis of variance, analysis of covariance (two-way analysis of variance), multiple regressions, and multiple, partial and zero-order correlations.

Various value, attitude, and demographic comparisons were made between sex and occupation. A finding of general interest was that females scored significantly higher on Benevolence value than males. Females also demonstrated significantly more positive attitudes toward the disabled, the blind, and toward progressive education practices than males. These findings are similar to Felty's (1965) study in Costa Rica and Friesen's (1966) study in Colombia and Peru.

AN INVESTIGATION OF DIFFERENTIAL ATTITUDES TOWARD THE PHYSICALLY HANDICAPPED, BLIND PERSONS, AND ATTITUDES TOWARD EDUCATION AND THEIR DETERMINANTS AMONG VARIOUS OCCUPATIONAL GROUPS IN KANSAS

By

Robert Francis Dickie

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I am indebted to the members of the advisement committee for this dissertation. Dr. William Durr, Dr. Arthur Seagull, and Dr. Donald Burke have given their support at critical stages of the project. Dr. John E. Jordan, in his capacity as committee chairman, has consistently exceeded the responsibilities of his position. He has been a tireless counselor, an insightful teacher, and a valued friend. Despite the press of his many and varied activities, he has always been willing to provide advice and encouragement when it was needed, which was frequently. Without his infectious enthusiasm and sensitive prodding, this thesis would not be a reality.

I am grateful to the late Dr. Martin F. Palmer, Director of the Institute of Logopedics, who provided the time and opportunity for the collection of much of the data. Dr. Palmer's active support of staff research and the resultant atmosphere created at the Institute of Logopedics, was both inspirational and practically conducive to maintaining one's level of research activity.

For the actual collection of the data, I am grateful to a number of organizations in Wichita, Kansas. Wichita State University provided the majority of the SER and E groups. Numerous local service and professional organizations participated in the collection of the M and L samples. A list of these organizations

would include: Wichita Lions East, Wichita Lions Central, Wichita Air Capitol, the Wichita Optimist Club, the 20-30 Club of Wichita, the Downtown Businessmen's Association of Wichita, the Wichita Personnel Managers Association, and the Wichita Division of Unemployment Security.

A special word of thanks is extended to the "behind the scenes" workers: Miss Katherine Morris who did a prompt and skillful job with the scoring of all raw data; and Miss Susan Speer who assisted with the programming at the Michigan State University Computer Center and was responsible for running the author's data when it was impossible to get back to the campus. Their contribution to the study far exceeded their monetary reimbursement.

Lastly, I owe a large debt of gratitude to my wife, LaFaye, and my sons, Torin and Brian, who have suffered through an extended period of physical and emotional strain with understanding and dignity. I thank them now for their encouragement and support, without which this project would have been impossible.

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

Chapter Page

Chapter Page

LIST OF TABLES

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

Basic to the effective expansion of existing educational programs and likewise to the development of new programs in special education are the prevailing attitudes[1] within the community toward the handicapped. This handicapped group includes both those with physical impairment[2] and those with varying degrees of intellectual limitation.[3] In order to intelligently plan special education programs, both in terms of basic development, as well as curricula content, emphasis and direction, it is essential that we be adequately appraised of the existing attitudinal structure within the community. It will be the community, with its attendant attitude structure, that will be called upon to support, both financially and intellectually, educational programs for the handicapped. In addition, it will be this same community to which the handicapped individual must effect an adjustment, whether successful, marginal or unsuccessful. Such an awareness of community attitudes will allow for

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[1] Defined according to Guttman as a "totality of behavior in respect to an object" (Guttman, 1950).

[2] See section on Definition of Terms, page 8

[3] See section on Definition of Terms, page 8

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either the structuring of programs to take certain of these attitudes into consideration, or to facilitate the process of changing negative attitudes in order to initiate the development of desirable educational programs for handicapped individuals.

Nature of the Problem

Recent publications point to the increasing magnitude of the problem of the handicapped in terms of future program needs. Davis (1963) alludes to the fact that medical advances, and their subsequent dissemination throughout the world via public health agencies, have markedly reduced death rates. A major consequence is a considerable increase in the number of children with physical disabilities who in previous years would have died in infancy (Meyerson, 1963, pp. 2, 3). Many of these children manifest severe handicaps with multiple disabilities common.

Numerous researchers in special education and rehabilitation (Barker, et al, 1953; Berreman, 1954; Force, 1956; Gowman, 1957; Lapp, 1957; Haring, et al, 1958; Miller, 1956; Simmons, 1955; Soldwedel and Terrill, 1957; Wright, 1960) have demonstrated the significance of attitudes in the acceptance of handicapped persons in certain social and educational settings. Very little systematic research, however, has been directed to uncovering factors which are instrumental in the development of attitudes toward the handicapped. More specifically, what importance can be attributed to such factors as (a) the amount of contact a person has had with the handicapped, (b) the value orientation of the person, (c) the existing social structure

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within cultural and sub-cultural groups, (d) socio-economic level, or (e) the level of educational attainment, in the process of development of attitudes toward the handicapped. These attitudes, in turn, to a great extent, will determine the nature of the response to programs of special education and rehabilitation. Areas where public attitudes are positive have seen rapid growth in the range of services made available to handicapped individuals. Likewise, areas where attitudes are negative or where the need for such programs is not perceived, have made little progress in providing services for the handicapped population in our society.

Statement of the Problem

The present study will attempt to assess the attitudes toward the handicapped held by various interest[1] (occupational) groups in the area of Wichita, Kansas. Specifically, a set of instruments (which will be described in Chapter III) will be employed in order to elicit attitudes toward general disability, toward blindness, and toward education, and will enable comparison of these attitudes from one occupational group to another. Further, an attempt will be made to relate these attitudes to other variables which from a theoretical standpoint should serve as correlates or predictors.

Kerlinger's theoretical model served as a basis for the study of attitudes toward education. He postulates a basic dichotomy which consists of a restrictive-traditional or permissive-progressive dimension of educational attitudes.

[1] See section on Definition of Terms, page 9

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He further suggests that the sharpness of this dichotomy is dependent upon occupational role, knowledge of and experience with education as well as the perceived importance of education (Kerlinger, 1956, p.312). The present research is also based on the assumption that Kerlinger's progressive-traditional dimension of attitudes toward education generalizes to attitudes in other areas such physical disability.

Social-psychological theory (Wright, 1960) has indicated that values are important and pervasive determinants of attitudes toward disability. Wright suggests there are two value orientations which exert differing effects upon attitudes toward the physically handicapped: comparative values and asset values. When a person evaluates an object by comparing it to a set standard, comparative values are in operation. However, when a person evaluates an object on the basis of the qualities which are inherent in that object, then asset values are being employed. It is felt that people who characteristically utilize asset values in their evaluation of others will be more favorable in their attitudes toward the handicapped than those whose evaluation of others is based on comparative standards. Another aim of the present research, therefore, is to determine whether this particular value-attitude relationship will be found with reference to physical disability.

Psychological theory likewise indicates that the amount and nature of interpersonal contact with a particular social

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object, such as the subgroup constituted by the handicapped, are important factors in the determination of attitudes. Still another research aim, then, will be to assess the amount and kinds of experiences (i.e., the interpersonal contacts) that respondents have had with the physically handicapped. The contact data will then be related with the obtained attitude scores.

The present study and resultant data will also meet the needs of a more comprehensive project currently being conducted at Michigan State University under the direction of Dr. John E. Jordan. Comparative data, useful for a survey throughout Latin America, (as well as selected countries in Europe, Africa, and Asia), will be secured dealing with a wide range of descriptive, statistical, and attitundinal indices toward education and toward the physically disabled.

Various authors (Chevigny and Braverman, 1950; Cholden, 1958; Cutsforth, 1951; Himes,1951) have suggested that the great majority of people regard blindness as the most severe physical disability that a person can incur. Investigation reveals that the blind enjoy a more favorable position than other physically handicapped persons with regard to the availability of services. In terms of the status of educational provisions, the amount (in comparison to other physical handicaps) of favorable federal and state legislation, and the establishment of separate state agencies providing

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services, it would appear that the assessment made by the authors stated above is valid. A fifth problem, then, will be to test significant differences between attitude scores derived from a scale utilizing the generic classification of physically handicapped and a scale utilizing the specific classification of blindness.

The present study will also yield a considerable amount of personal and demographic data. Modern computer analyses techniques enable the investigation of interrelationships among this type of diverse data. The analysis of such data may indicate suggestive relationships leading to subsequent research efforts. It is also possible that the analysis may further suggest research predictions.

Definition of Terms

The following terms are used frequently throughout this study. Many have either a specific meaning in relation to the study or are in need of operational definition.

Attitude.--This general term will be utilized following the definition of 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 the acts that a person has performed with respect to Negroes." The use of this definition is also consistent with the attempt to use some of Guttman's concepts in respect to scale and intensity analysis.

Attitude Component.--Components of attitudes have been discussed by various investigators (e.g. Guttman, 1950, Ch. 9; Katz, 1960, p. 168; Rosenberg, 1960, pp. 320, ff). The two components generally considered are those of belief and intensity, although Guttman defines additional components according to certain mathematical properties. The first component in this study will be that of item content (or belief), the second that of item intensity (cf. Guttman, 1950, Ch. 9; Suchman, 1950, Ch. 7).

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

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

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

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Demographic Variables.--Specifically, this refers in the present study to certain statitical data frequently used in sociological studies. These variables are: age, sex, education, income, rental, occupation, number of siblings, occupational and residential mobility, rural or urban residence in youth, and religiousity. Data on these demographic variables were secured through responses of respondents to 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). This educational measure and the one above do not constitute scales as defined for the present study, but rather are made up of two independent clusters of items which appeared in Kerlinger's factor analytic studies, and which Kerlinger characterized by the terms progressivism and traditionalism.

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

Impairment.--This term refers to a defect in tissue or in the body structure. As such, it has no particular social connotations.

Physical Disability.--This is a functional term denoting some loss of the tool function of the body. An approximate synonym is "physically incapacitated." In the present study the term "handicapped" was utilized since this appeared to be more meaningful to the general public than the term physical disability.

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

Institutional Satisfaction.--This term is used to describe a set of variables on which the respondents were asked to indicate how well they felt that various kinds of local institutions were performing their stipulated functions in the community. These institutions were schools, business, labor, government, health services, and churches.

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

Occupational Personalism.--This term is operationally defined by two questionnaire items designed to ascertain:

first, about what percent of the time people work with others with whom they feel personally involved; second, how important it is to work with people with whom one is personally involved. A personalistic orientation to life is sometimes considered as a distinguishing characteristic of traditional social patterns (e.g. Loomis, 1960).

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

Religiosity.--A term used to denote a person's orientation to religion. Operationally, it is defined by three items in the questionnaire: first, the matter of religious adherence; second, the perceived importance of religion to the person; and thirdly, the extent to which the person follows the rules and regulations of his religion.

Special Education.--This term follows the definition by Kirk (1962, p. 29) and 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 (1964a, p. 1) has commented: "the basic aim of special education is to prevent a disability from becoming a handicap."

Value.--According to Kluckholn (in Parsons and Shils, 1951, p. 411), "a value orientation may be defined as a generalized and organized conception, influencing behavior, of nature, of man's place in it, of man's relation to man, and of the desirable and nondesirable as they may relate to man-environment and interhuman relations." In relation to this general definition, the present study has focussed upon the value sub-set of "man's relation to man," or, interpersonal values. Two interpersonal value categories were adopted: (a) Asset values predispose an individual to evaluate others according to their own unique potentials and characteristics, (b) Comparative values predispose an individual to evaluate others according to external criteria of success and achievement (Wright, 1960, pp. 128-133). Operationally, these values were defined by three scales on the Survey of Interpersonal Values (Gordon, 1960). Asset values are measured by the Benevolence Scale, and comparative values by the Recognition and Leadership Scales. These scales were judged by the investigator to have reasonable face validity for the measurement of the values proposed by Wright. Additional variables measured by the Gordon Survey of Interpersonal Values, but which were not used for hypothesis testing, were those of Support, Conformity and Independence. For a more detailed discussion of the value selection rationale, see Chapter III, Interpersonal Values (pp. 60-61).

Change Orientation.--In the present study, this variable refers to the willingness of individuals to accept or even encourage change in the following areas: health practices, child rearing practices, birth control, automation, political leadership, and self change. These variables were operationally defined by a series of questions in the personal questionnaire. It was postulated that people working in SER would have responses which suggested a greater flexibility and openess to change. This favorableness toward change challenges many existing cultural norms.

Organization of the Thesis

This thesis is organized according to the following plan:

Chapter I serves as an introduction to the nature of the problem involved in the study.

Chapter II is a review and summarization of theory and research related to this study. The major divisions include:

1. A theoretical framework for attitudes toward education.
2. Attitudes toward disability
   a. Peer group attitudes and acceptance-rejection
   b. Parental attitudes
   c. Teacher attitudes
   d. General disability attitude studies
3. Theoretical framework of attitudes toward disability.
4. The relationship of values, personal contact, and attitudes - some research findings.
5. The measurement of attitudes.
6. Michigan State University cross-cultural attitudinal studies.

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Chapter III is concerned with the procedures and methodology of the study. The instrumentation of the study and the statistical procedures used in the analysis of the data are included in this chapter.

Chapter IV presents the research results in tabular and descriptive form.

Chapter V presents a summary of the results with conclusions and recommendations.

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REVIEW OF THEORY AND RELATED RESEARCH

Volumes of current literature have been devoted to exploring the relationship of education to innovation and social change. However, there has been surprisingly little theoretical discussion about the basic dimensions or factors underlying attitudes toward education.

Miles makes the following observation with respect to innovation in education:

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

A Theoretical Framework for Attitudes Toward Education

Kerlinger has developed a theoretical model built on a dichotomy which postulates progressive and traditional dimensions of attitudes toward education. His approach is most relevant to the needs of this study and will be used as a theoretical framework for the present research.

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Kerlinger states that educational attitudes can be conceptualized as hinging on two relatively independent underlying factors or ideologies. 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 the usual way of conceiving of traditionalism as simply the negation of progressivism, it might better be conceived as the affirmation of a stand which emphasizes a conservative-traditional approach to educational issues and problems. Progressivism also seems to be a stand in its own right. When we say a man is an "educational progressivist" we do not simply mean that he is an anti-traditionalist. While this is undoubtedly true, it is more important to suggest that progressivism is an independent stand in its own right (Kerlinger, 1958, p. 330).

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

In contrast, the permissive-progressive factor emphasizes problem solving and de-emphasizes subject matter per se. From this perspective, education is seen as growth and the child's interest and needs are seen as basic to education. Equality

and warmth in interpersonal relationships is valued. There is an orientation on internal rather than external discipline. Social beliefs tend to be liberal and emphasize education as an instrument of change (Kerlinger, 1958, p. 112).

Kerlinger's theory can be summarized in the following four propositions:

1. Individuals having the same or similar occupational or professional roles will hold similar attitudes toward a cognitive object which is significantly related to the occupational or professional role. Individuals having dissimilar roles will hold dissimilar attitudes.
2. There exists a basic dichotomy in the educational values and attitudes of people, corresponding generally to "restrictive" and "permissive", or "traditional" and "progressive" modes of looking at education.
3. Individuals will differ in degree or strength of dichotomization, the degree or strength of dichotomization being a function of occupational role, extent of knowledge of the cognitive object (education), the importance of the cognitive object to the subjects, and their experience with it.
4. The basic dichotomy will pervade all areas of education, but individuals will tend to attach differential weights to different areas, specifically to the

areas of (a) teaching-subject-matter-curriculum, (b) interpersonal relations, (c) normative, and (d) authority-discipline (Kerlinger, 1956, p. 200).

Kerlinger has noted that the value structure of individuals is not well understood. He insists that the problem of the consistency and inconsistency of an individual's attitude is still largely unsolved (Kerlinger, 1956, p. 296).

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

He developed the following categories for the study:

ATTITUDES:

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

AREAS

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

An example of 1(a) would be: The true view of education is so arranging learning that the child gradually builds up a storehouse of knowledge that he can use in the future. An illustration of 2(a) would be exemplified in the following statement: Knowledge and subject matter themselves are not so important as learning to solve problems. An illustration of

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1 (m) might be: One of the big difficulties with modern schools is that discipline is often sacrificed to the interest of the children. An example of 2(m) might be: True discipline springs from interests, motivation, and involvement in live problems.

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

The results of the Kerlinger study indicated that occupational roles and role expectations are potent independent variables influencing attitudes and vice versa. Individuals having similar roles might be expected to have similar attitudes and a similar attitude structure.

Kerlinger summarizes the traditional-progressive issue as follows:

> 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).

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

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She also hypothesized a relationship between attitudes toward education and general social attitudes. Thus individuals holding progressive educational attitudes would tend to be liberal in their social attitudes and visa versa. Individuals conservative in their social attitudes would be expected to be traditional in their educational attitudes.

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

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

Block and Yuker (1965) developed a scale to measure intellectual attitudes: the Intellectualism-Pragmatism (I-P) Scale. While they do not define intellectualism in this article, it is contextually inferred that it is an intellectual orientation resulting from academic exposure.

They note that intellectualism was found to be associated with a progressive attitude toward education as measured by the Kerlinger Education Scale. Contrary to expectations, however, I-P scores were not related to Kerlinger's Traditionalism Scale.

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

They concluded that education (at least some types of education) brings about attitude changes in students that are related to a greater intellectual orientation.

Kramer used Rokeach's Dogmatism Scale and Kerlinger's Education Q sorts in an effort to measure the interrelation of belief systems and educational values of school teachers.

He found that "open-minded" teachers as a group were more consistent and held permissive-progressive attitudes. He also found that the more "open-minded" a teacher's belief system was, the greater the likelihood for internal consistency of an educational attitude structure in a progressive direction.

While the "close-minded" teachers were less consistent than the "open-minded" teachers, they were more consistent than those who had no clear cut belief system (Kramer, 1963).

Thoreson concluded that when an individual is faced with conflicting norms held by multiple reference groups, it is the strength of his associations with a group that determines whether that group's norms will be internalized by him (Thoreson, 1963).

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Lawrence (1963) used the Scale of Beliefs on Social Issues to measure liberal beliefs and consistency of beliefs. This scale appeared to differentiate between liberal and conservative beliefs. Lawrence also used Kerlinger's Education Scale II to measure both progressive educational attitudes and attitudinal consistency. She reported that this scale did not seem to differentiate progressive and traditional attitudes toward education.

Taylor (1963) used Kerlinger's Education Scale II to study the relationship between basic educational attitudes and participation in professional teacher activities. She was also interested in the relationship of basic educational attitudes to educational background of teachers. She found that teachers with border-line traditional attitudes participated less in activities related to pupils than did teachers in other categories such as traditional, progressive borderline, or progressive. She also found that 29% of the teachers had attitude scores that almost certainly indicated either traditionalism or progressivism.

Anderson (1964) studied the changes in attitudes of prospective teachers toward education and teaching in secondary schools. She found that student teachers, for the most 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 resonsible for producing attitude change are identified. These included people with whom student teachers came in contact, effectiveness of the school program, and attitudes formulated before student teaching experiences (Anderson, 1964).

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

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

Classon, in her study of elementary school teachers attitudes toward children and teaching as well as toward supervision, concluded that the success of the program supervisor who attempts to introduce or improve a program will depend, in a large measure, upon the degree of acceptance and cooperation from the staff. The supervisor should carefully study and evaluate teacher's attitudes toward supervision before attempting to improve and develop any program (Classon, 1963).

Attitudes Toward Disabled

Studies of attitudes toward the physically handicapped have been undertaken in various settings with differing groups the object of research. It is possible, however, to classify

these studies into four general categories: (a) Peer group attitudes and acceptance-rejection, (b) Parental attitudes, (c) Teacher attitudes, and (d) General attitude studies. Although the present study does not deal with mental retardation specifically, studies of attitudes toward the mentally handicapped have been included in this review because of their theoretical relevance to the general area of attitudes toward the handicapped.

Peer Group Studies

In the area of peer group acceptance, several researchers (Baldwin, 1958; Blatt, 1958; Harris, 1957; Johnson, 1950; Jordan, 1959; Miller, 1956; Thurstone, 1959, 1960) have demonstrated the critical importance of attitudes in the acceptance of the mentally retarded and the physically handicapped by their normal peers in regular public school classes. All of the above research studies uniformly indicate that handicapped children attending regular grades are characteristically rejected by their normal peers and that they tend to become social isolates.

Two further studies (Lapp, 1954; Mullen and Itkin, 1961) are of interest because of their lack of agreement with the majority of research in this area. These authors found no significant differences in academic achievement, in adjustment ratings, or in sociometric ratings between mentally retarded children in special classes and those in regular grades.

Force (1956) has shown how the attitudes of peers effects the adjustment of physically handicapped children in regular classes through the use of peer group sociometric friendship choices. It was found that physical disabilities have varying social values with cerebral palsy ranking lowest on the value scale (visual disability ranked next lowest). Force hypothesized an acceptance-rejection continuum or hierarchy based on "visability"; i.e., obviousness of the impairment.

Centers and Centers (1963) administered a social discrimination questionnaire to classmates of children with amputations and to classmates of non-amputee children. They hypothesized that the presence of amputation represents a threat to bodily integrity which will be reflected in attitudes of greater rejection of amputee than of non-amputee children. They found significantly greater numbers of rejecting attitudes expressed toward the amputee by his classmates than were expressed toward non-amputee children, thus confirming their prediction.

Four studies (Elser, 1959; Justman, 1956; Justman and Moskowitz, 1957; O'Connor and O'Connor, 1961) investigated the status of hearing handicapped children in regular classes. Elser found that the deaf were not accepted as the equals of their classmates. O'Connor and O'Connor state that one of the most important factors in the successful integration of

deaf children into regular classes is the attitudes of the total school environment - classmates, teachers, and administrators. Justman and his associates studied the acceptance of deaf children in regular classes over a two-year period. They found that deaf children were not truly accepted by the hearing students although the authors feel that the prolonged contact had to some extent improved the social status of the deaf students during the second year.

Bateman (1962) examined sighted children's perceptions of various abilities of blind children and some factors which influence these perceptions. A number of interesting relationships were found: (a) the amount of contact was associated with more positive attitudes toward the blind - those who had had contact with blind were more positive and the positiveness of appraisal increased with the number of blind children known, i.e. contact. (b) the appraisal of urban children was more positive than that of rural children; (c) positiveness of appraisal was associated with the level of educational attainment of sighted children. The author suggests several implications from her study: "Support was found for the contention that personal knowledge about blindness (acquaintance with a recognizably select group of blind children - those attending public schools) does broaden sighted children's ideas of the capabilities of the blind.....The fact that the children who had had no experience with the blind expressed greater certainty and unanimity

in their evaluations indicates that increased knowledge may decrease the tendency to make absolute judgements and generalizations.....Interesting speculations are suggested by the finding that rural children were more negative or devaluating in their appraisals than were urban children. Are rural children more prone to accept negative stereotypes than urban children, or is this simply a reflection of possibly broader general experiences normally obtained in an urban setting?" She suggests that further research could be profitable in the areas of attitude formation and change related to stereotyped attitudes concerning the handicapped.

Horowitz and Rees (1962) investigated the area of attitudes toward the aurally handicapped. Their purpose was to assess amount of knowledge concerning deafness and attitudes toward the deaf. Three different age groups ranging from elementary age children to college students were selected for the study. They concluded there was little knowledge, much ignorance, and considerable confusion concerning deafness and deaf people. They found that knowledge was not necessarily a determining factor in the development of expressed attitudes, either positive or negative, toward the deaf.

Parental Attitudes

Smart (1953) has emphasized that:

> Many problems of the child are a reflection of the parental attitudes and problems since his maturity and emotional reaction are largely a result of the degree of love, affection and security he receives from them (Smart, 1953, p. 160).

Meyer (1953) has noted that these "....parental attitudes that surround the child mold more than in normal cases the personality," (p. 155) of the physically handicapped child. This is partly due to the prolonged dependence of the handicapped child on parents, the many contacts with doctors, therapists and other authoritarian figures. Gillette (1955) has stressed that in the treatment of cerebral palsy, "the diagnosis of the child's condition begins with the appraisal of the parent's attitude" (p. 31).

Farber (1960) attempted to describe the various conditions influencing the effects of a severely retarded child on family integration. He found that families with a retarded boy at home had less marital integration than families with a girl in the home. He further found that, generally, the normal sister but not the normal brother was helped by the decision to institutionalize the retarded child. Other factors which were influential in determining parental reactions were socio-economic status and religious affiliation: higher socio-economic families were best able to maintain marital integration and Catholic families were able to assimilate the retarded child most readily.

Farber (1960a) also has studied the ways in which families deal with the crisis of having a severely retarded child. He found that parents who consistently utilized either parent-oriented, child-oriented, or home-oriented strategies had higher marital integration than parents who did not employ a consistent orientation. Results indicated that the type of family orientation rather than institutionalization of a child is most important for maintenance of family integration.

Yuk, et al (1961) found a low but positive correlation between measures of maternal acceptance of handicapped children and religious background. Catholic mothers rated themselves more intense in religious practices than non-Catholic mothers and also verbalized attitudes judged more acceptant. Religious background correlated positively with maternal attitudes when judgement of acceptance was based on attitudes from items involving dispositions toward discipline and overdependence.

Harris (1959) utilized three methods of parent education in an attempt to develop positive parental attitudes: (a) incidental counseling by staff; (b) small group discussions; and (c) formal programs dealing with aspects of retardation. No significant differences were noted on pretest - post test analyses. However, field work impressions suggested that parents do gain from the opportunities to secure adequate knowledge concerning their handicapped children.

A study similar to Harris' was conducted by Bitter (1963). He utilized parent group discussions as a vehicle for producing attitude change among parents with a trainable retarded child. The results suggest that discussion sessions were successful in changing parent attitudes toward their retarded child and alleviated family problems created by the presence of the child. Bitter feels that this change was in a positive direction.

Cook (1963) studied the attitudes of mothers of children with one of the following handicaps: blindness, deafness, mongolism, cerebral palsy, and organicity. Mother's attitudes according to type of disability were: blind - overprotective; deaf - overindulgent; mongoloid - punitive; cerebral palsy - punitive; organic - overindulgent. Mother's attitudes in terms of severity of handicap, disregarding the diagnostic grouping were: mildly handicapped - rejecting; and, severely handicapped - overprotective.

Sommers (1944) studied the influence of parental attitudes on the personality development of the adolescent blind. She states: "Interviews with parents disclosed that the majority of mothers studied experienced frustration or feelings of conflict because of having given birth to a blind child." Reactions of the parents to their blind children fell into five categories: (a) genuine acceptance, (b) an attitude of denial that either parent or child is affected by the handicap, (c) overprotectiveness and excessive pity, (d) disguised rejection, and (e) overt rejection.

Verillo (1958) investigated the relationship between the attitudes of parents and the adjustment of groups of visually handicapped and sighted adolescents. She found that adolescent adjustment in both groups was significantly related to children's perceptions of attitudes of rejection and acceptance from parent figures. Children's perceived attitudes and actual parental attitudes were significantly related. High socio-economic status was positively related to the degree of adjustment of children and to maternal acceptance of children in both groups. Low socio-economic status was related to attitudes of overprotection, dominance, rejection, anti-minority, and authoritarianism in both groups. In the visually handicapped group, attitudes toward blindness became significantly more negative as ages of children increased, a finding in contradiction to the theoretical orientation of the present study.

Underberg (1958) and Underberg, et al (1961) studied the relationship between parental understanding and child adjustment in the visually handicapped adolescent. He found that less understanding may exist between partially seeing children and their parents than is usual in similar relationships involving normally seeing and blind children. The author hypothesized that this results from the discrepancy which occurs between the expected and observed behavior of these children. Since from outward appearances many partially sighted children seem normal, parents and others have normal expectancies for the child's behavior and growth. When the

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degree of visual limitation prevents normal growth or results in aberrant behavior, this deviant behavior is perceived to result from lack of intelligence, clumsiness, or stubborness on the part of the child, rather than from the visual limitation per se.

Wolfe and Reid (1958) studied the attitudes of parents of cerbral palsied children. They found that the more severe the case of cerebral palsy, the more critical were the opinions of parents. In addition, they found that the opinions of parents whose cerebral palsied children were attending school were less pessimistic than the opinions of parents whose children were: (a) too young for school, or (b) old enough for school but had never attended.

Meyer and Crothers (1953), Misback (1955), Block (1956), Smart (1953), and Usher (1946) have all emphasized the crucial need for research efforts into the attitudes of parents with cerebral palsied children.

Bice (1954) investigated some of the factors related to the concept of self in the cerebral palsied. He found that the attitudes of parents were important determinants of the handicapped child's self-concept. In his study, 74 percent of the parents tested revealed negative attitudes toward the handicapped.

Levine (1956) in a study of common beliefs concerning cerebral palsy, states that: "the more severely involved a cerebral palsied child, the more pessimistic were his parents regarding the intellectual abilities of cerebral

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Numerous other studies (Browne, et al, 1960; Denhoff and Holden, 1954; Fliegler and Hebeler, 1960; Gurney, 1958; Reeves, 1962; Shere, 1956; Worchel and Worchel, 1961; Wortis and Cooper, 1957) have demonstrated the importance of parental attitudes in the adjustment process of the handicapped child.

Teacher Attitudes

Haring, et al (1958) investigated the attitudes of educators toward exceptional children. The authors also attempted to modify teacher attitudes toward disabled children through the use of workshops. They found workshops most successful in those cases where teachers had regular contact with these children. This finding suggests a possible interaction between information and contact in relation to attitudes toward a subordinate group, if such information necessitates a change in beliefs. "From the reaction of those teachers who had few opportunities for actual experiences with exceptional children, it appears that the threat of having to modify behavior is more anxiety-producing than the real process of change itself" (p. 130).

> The effort of a formal attempt to modify attitudes, whether through mass media or a workshop, seems only to increase the anxiety and to provide a specific focus for the expression of and the development of organized resistance (p. 131).

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The authors also found that children with cerebral palsy were considered the most handicapped group. Teachers were considering acceptability of children for regular school programs so that factors concerning class management undoubtedly were influential as well as the specific personal reactions to handicapped children. The only children who were considered acceptable by teachers for inclusion in regular classes were those with mild hearing losses and those crippled children who were ambulatory through the use of a wheelchair or crutches.

Semmel (1959) contrasted attitudes toward and knowledge about mental retardation among special class and regular grade teachers. He found equally high positive attitudes toward mental retardation for both groups. The special class teachers, however, demonstrated significantly greater knowledge with respect to retardation. The amount of knowledge and the attitude scores showed positive correlations among special class teachers and no correlation among regular teachers.

O'Connor and O'Connor (1961) in their study of the integration of deaf children in regular classes, stress the importance of teacher attitudes in the success or failure of the deaf child's adjustment. They indicate that negative attitudes on the part of regular school personnel is one of the factors which makes integration of the deaf a risky educational decision.

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Studies by Kvaraceus (1956), Dickstein and Dripps (1958), and Murphy (1960) were directed to obtaining preference rankings of teachers for teaching particular groups of children. In general, the gifted were the most preferred group while the mentally retarded and the maladjusted were least preferred. Physically handicapped children were in between in order of preference. Dickstein and Dripps, and Murphy found that those people with an educational specialty (e.g., such as speech pathology) most preferred children with a related disorder (e.g., speech problem). Generally, teachers preferred to work with those children with whom they were most familar. The finding that familiarity or contact with handicapped children is usually associated with higher prefernce rankings or more positive attitudes is of interest to the present research. The problem in interpreting this type of research is that the effects of information and contact have not been controlled, and therefore, the differential contribution of either is unknown. The present study will specifically control these factors.

General Attitude Studies

Two studies (Lukoff and Whiteman, 1961; Whiteman and Lukoff, 1962) were directed at assessing attitudes toward the blind. Their researches were of especial interest because they not only studied attitudes per se, but, in addition, concerned themselves with attitude

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structure and personal value orientations of their respondents. They indicated that contact appears to be related to more positive attitudes and the degree of espousal for community integration of the blind. With regard to structure, the authors found that for a specific component, correlations are higher between disability groups than with another component for the same disability group. They state:

> The relationship between components, even though within a given disability group 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 worthwhile experiences correlate .53, while the two items referring to the sorrowful characteristics of the blind and physically handicapped correlate .61. Similar considerations obtain when the components deal with pity towards blind people, or with readiness for interaction with them (pp. 154-155).

Whiteman and Lukoff also considered the value orientations of respondents.[1] "....those who describe themselves as distant from others, or those who identify strongly with power may also express these orientations in negative evaluations of blindness" (1962, p. 156).

Clunk (1948) reviewed the area of employer attitudes toward the blind. He concluded that many employers hold negative attitudes and that these attitudes are based on

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[1]Other respondent's variables considered by Whiteman and Lukoff but not related to the present study, concern projective characteristics, intelligence, and the level of anxiety (pp. 155-156).

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ignorance of the true employment potential of the blind. He pointed to the extreme difficulty in placing blind workers on the job.

> One placement agent reported that it required nine years to secure approval of employment for one blind person in one of the smaller plants in a nationally known brass manufacturing chain. To place one person in a large electrical appliance plant, it was necessary to secure approval of the president and all executives between him and the idustrial relations director. Then a five-hour meeting was held under the chairmanship of the industrial relations director and included all department superintendents, safety department, and union officials. The placement agent had to spend a week in the plant performing approximately 50 different processes, and then four months of repeated calls were required before the first blind person went to work; and this was in wartime (Clunk, 1948, p. 58).

Cantoni (1963) and Cohen (1963) both reported on the willingness of employers to hire the physically and mentally handicapped. They suggested a number of ways of assessing employer attitudes. Their findings enunciate the extreme difficulties that the handicapped face in effecting an economic adjustment.

Gowman (1957) studied the attitudes of different socio-economic groups toward blindness and other physical disabilities. He found that blindness was overwhelmingly selected as the worst possible disability. The other physical handicaps in order of perceived seriousness were leg amputations, deafness, arm amputation, and severe facial burns. Gowman also found a positive relationship between the socio-economic level of the respondents and their verbalized attitudes toward the physically handicapped with high socio-economic level being associated

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Raskin (1956) in a penetrating analysis of the attitudes of sighted people toward blindness, has suggested that such attitudes are most likely shaped by multiple determinants. He indicated the probable operation of psycho-dynamic, situational, socio-cultural, and historical determinants.

Cowen, et al (1958) undertook the development of an instrument to measure verbalized attitudes toward blindness. Utilizing their scale with a group of university students, they found that contact or lack of contact with the blind does not relate significantly to verbalized attitudes toward blindness. Their data suggests, in addition, that attitudes were slightly more negative among those subjects who had had previous contact with the blind. This finding is contradictory to the theoretical orientation of the present study. The authors, do, however, indicate that the extent and type of contact are important variables that were not controlled in their study. The present study will control these variables. Cowen and his associates further tested the hypothesis that the blind person is viewed in certain ways common with minority group members, and that negative attitudes toward blindness will be found to occur together with pro-authoritarian attitudes. They obtained significant re-

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In agreement with the Cowen study, Berreman (1954) says that the handicapped constitute a group not unlike a minority group such as Negroes or Jews. Berreman's studies indicate that public "verbalized" attitudes toward disabled persons are on the average mildly favorable. However, he also says that independent evidence suggests that deeper unverbalized attitudes are more hostile.

Burns (1958) referred to the ignorance of the general public concerning the deaf. He states that most people are not aware of individual capabilities of deaf persons and hold negative attitudes toward them. Burns refers specifically to potential employers of the deaf and their unwillingness to hire them for jobs for which they have the ability to perform effectively. He states that these attitudes develop because of the lack of knowledge concerning the deaf.

Bruce (1960), Stelle (1958), and Strong (1931) all refer to the negative attitudes held by the general public toward the deaf. Lubberts (1965) studied the relationship of attitudes toward the deaf and the following variables: sex, frequency of contact, socio-economic status, age, occupation - either service with the deaf or not. He found that attitudes were significantly more favorable than neutral.

He also found a positive relationship between the amount of contact and favorable attitudes toward the deaf. Since the Kansas School for the Deaf is located in Olathe, where the study was conducted, Lubberts felt that the contact local residents had with the deaf was related to favorableness of attitudes.

Nash (1962) explored the attitudes of non-handicapped toward the orthopedically handicapped. She found a relationship between a number of background factors of her subjects and the degree of acceptance of handicaps in others. The subjects who were most tolerant, were younger, currently married, and had attained a higher educational level.

Bell (1962) studied the attitudes of professional rehabilitation workers and hospital personnel toward the physically handicapped. Utilizing Yuker's Attitude Toward Disabled Persons Scale, he found that those workers and personnel with disabled relatives were significantly more accepting of the physically handicapped than those without close personal contact.

Theoretical Framework For Research In Special Education And Rehabilitation

One of the more serious criticisms which can legitimately be directed to the majority of research efforts in the fields of special education and rehabilitation is the consistent concern with applied, descriptive studies which utilize instruments and techniques developed specifi-

cally for a given study. As a consequence, results frequently lack generality and theoretical relevance. Numerous researchers in special education and rehabilitation have criticized the purely practical nature of most special education research and have called for studies generated by broader theoretical bases (Kvaraceus, 1958; Levine, 1961; Myerson, 1955, 1963).

Jordan (1961) undertook the development of a comprehensive taxonomy of special education. He presented two miniature and overlapping taxonomic structures and suggested that a comprehensive data language would lend to a sophisticated pedagogy, assist in the development of a curriculum with construct validity, and provide a basis for a theoretical foundation for special education.

Hollinshead (1959), Trippe (1959), and Reynolds (1960) in a series of three articles discussed the social psychology of exceptional children.

O'Connor and O'Connor (1959) criticized research in special education. They state that most research is characterized by:

> .....isolation without relationship to theories and findings of other studies. There is tendency to neglect theoretical research and to concentrate on immediate practical problems. Too often the findings are inconclusive, not warranting wide applications; seldom are they repeated and related to each other (p. 487).

Theoretical Base of the Study

The major theoretical orientation of the present study is consistent with the social-psychological approach to the investigation of physical disability. This approach is commonly referred to as somato-psychology and it draws heavily on the field theory paradigm of inter-personal relationships as developed by Lewin (1936). The principle developers of this theoretical position with regard to the physically handicapped have been Barker, et al (1953); Dembo, et al (1956); Meyerson (1955, 1963); and Wright (1960).

Barker, et al (1953) have conceptualized the position of the physically handicapped in our society as being characterized by three significant psychodynamic features: (a) it is underprivileged, (b) it is marginal, (c) it involves more frequent exposure to new psychological situations. In many respects, the position of the physically handicapped resembles that of racial and religious minorities, in that definite restrictions exist in the accessible life space areas and actual inaccessibility of certain valued areas of social mobility.

Barker (1948) states:

> Physically disabled persons cannot participate in many activities which physically normal people value highly. Thus, the employment opportunities open to disabled persons are sharply limited, and where opportunities do exist, the higher levels are severely restricted. Likewise, the social and recreational activities in which disabled persons are able to engage are limited. In these

> respects, the physically disabled person is in a position not unlike that of the Negro or the Jew and other underprivileged minorities; he is a member of an underprivileged minority (p. 31).

The central constructs of the social psychological approach to somato-psychology are those of self, other, reference group, role, attitude, and value. These constructs are congruent with the more general social psychological orientation of symbolic interaction. Within this framework, physical disability can be viewed not as an objective entity in-and-of-itself, but rather, a social value judgement. Certain roles in a society possess high value for maintenance of the social system, and people are generally esteemed according to how they are perceived to fulfill these valued social roles. Attitudes toward physical disability, therefore, should vary according to the kinds of social roles perceived to be important to the individual, or collectively to the society. Studies by Richardson (1960) and Goodman (1963) lend support to this position.

Although there are differences between the theoretical orientation of Meyerson (1963) and the Meadian orientation of Shibutani (1961), both share the basic interactional propositions. The underlying assumptions, according to Shibutani (1961, p. 22-24) are as follows: (a) behavior is motivated through the give and take of interpersonal adjustment - both the person and the society are products of communication, (b) personality is continually reorganized

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and constructed in the day-by-day interactions with others, (c) culture consists of models of proper conduct hammered out and reinforced by communications and by collective grappling with life conditions. The attitudinal implications of interpersonal contact, value organization, social norms, and role behavior as perceived by people will be considered in the present study.

The relationship of this frame of reference to physical disability was proposed by Levine. He suggested that disability is not a thing in itself but a social value judgement.

> These values related to society's perceptions 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 (Levine, 1961, p. 84).

Expressed in more general terms, Levine has suggested 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 which are generally felt to be of value in maintaining society.

Role fulfillment may be perceived by others as 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 stereo-typed according to their social contributions (Levine, 1961, p. 84).

Values

According to Allport (1958), values are important sources of prejudice, or negative stereotypes. "The most important categories a man has are his own personal set of values. He lives by and for his values...evidence and reason are ordinarily found to conform to them...the very act of affirming our way of life often leads us to the brink of prejudice" (p. 24). "Man has a propensity to prejudice. This propensity lies in his normal and natural tendency to form generalizations, concepts, categories, whose content represents an oversimplification of his world of experience" (p. 26). "One type of categorization that predisposes us to make unwarranted prejudgements is our personal values" (p. 27).

Katz refers to attitudes as having a "value-expressive function" (Katz, 1960, p. 173). They confirm and clarify to others and to the person himself those things most important and central to his image. Katz discusses the relationship of attitude to value in terms of attitude change. "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).

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He would expect a great deal of consistency between a basic value, such as equality, and a more specific attitude, such as favorableness toward opportunities for disabled persons. People are generally more inclined to change or give up attitudes inconsistent or unrelated to central values.

Another conceptual value orientation of importance because of its specific relation to the consideration of attitudes toward the handicapped, was refered to previously (Wright, 1960). Values can be clustered according to whether they are derived from (a) comparisons or from (b) intrinsic assets (Dembo, Leviton, Wright, 1956; Wright, 1960).

> If the evaluation is based on comparisons with a standard, the person is said to be evoking comparative values.....On the other hand, if the evaluation arises from the qualities inherent in the object of judgement itself, the person is said to be evoking asset values. What matters is the object of judgement 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 comparisons with a predetermined standard (Wright, 1960, p. 129).

Some situations require comparative evaluations, such as the requirements for a particular job. In other situations, however, persons with an asset value orientation may be able to make an evaluation of the disabled person on the basis of his own unique characteristics as a human being.

There is some justification to argue that programs of special education and rehabilitation develop as a result

of the asset values of a particular society. On the other hand, a society, in which educational opportunity depends on some comparative standard, either with respect to hereditary standards (comparisons with the past) or to achievement standards (comparisons with present norms), will likely develop only minimal programs providing services to disabled persons. An additional inference from the asset-comparative value framework, is that individuals engaged in special education and rehabilitation would be expected to hold higher asset values than individuals working in other occupations.

Attitude Intensity

Rosenberg has considered the intensity component of an attitude as an action predictor (1960, p. 336). Carlson (1956, p. 259) found initial intense attitudes much more resistant to change than moderately held attitudes. Guttman and Foa (1951) have shown that intensity is related to amount of social contact with the attitude object. Considerable research has suggested that intensity is an important component of attitude structure in determining the "zero point" of a scale that discriminates the psychologically "true" positive from negative attitude direction. This is not the same as the actual scale numbers. The printed zero point on a scale may or may not be the actual point of indifference (Foa, 1950; Edwards, 1957; Guttman, 1947, 1950, 1954; Guttman and Foa, 1951; Guttman and Suchman, 1947; Suchman and Guttman, 1947; and Suchman, 1950).

It is essential, therefore, that we be able to divide the respondents on the basis of the favorableness or unfavorableness of their responses. We must establish an objective "zero" point, independent of the content of the items, which will divide favorable and unfavorable responses. The method employed in the present study is to ascertain for each item how strongly the respondent feels about the item. It has been shown (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 on the content scale of the lowest intensity of response. This point has been empirically established as a point of indifference in respect to 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 to state in respect to a particular group about what percent of the respondents are actually favorable, neutral, or unfavorable, as defined by an objective and invariant referrent point.

Personal Contact

Homans (1950, p. 112) has suggested that frequency of contact between groups or persons and favorableness of attitude are related. He held the converse also to be true.

Allport (1958, pp. 250-268) states that "equal status contact" creates more favorable attitudes when the contact is in pursuit of common goals (p. 276). Casual contacts do not have predictable results, and may actually strengthen negative stereotypes (p. 252). Allport also found that status was significantly related to attitudes. Studies of attitudes toward Negroes demonstrate that people having contact with high status or high occupational group Negroes hold more favorable attitudes than those whose contacts have been with low status Negroes (pp. 254, 261-262).

Jacobson, et al (1960, p. 210-213) suggested that equal status contacts are more likely to develop friction (i.e., result in unfavorable attitudes) if the basis of the status equality is unsure; i.e., if one group does not fully accept the equality which is felt by the other group.

Zetterberg (1963, p. 13) has reviewed social contact considerations of Malawski in which the effects of frequency of social contact on liking or disliking are dependent on two other variables: "Cost of avoiding interaction, and availability of alternative rewards...if the costs of avoiding interaction are low, and if there are available alternative sources of reward, the more frequent the interaction, the greater the mutual liking." Phenomenologically, these observations seem related to the felt freedom of a person to interact with another and his choice of this interaction

over other activities perceived as rewarding.

Felty (1965, p. 31) has summarized these contact variables: .....frequent contact with a person or group is likely to lead to 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. contact is with members of a higher status group (Allport, 1958, pp. 254, 261-262);
4. contact is among status equals and the basis of status is unquestioned (Jacobson, et al, 1960, pp. 210-213);
5. contact is volitional (as reinterpreted from Zetterberg, 1963, p. 13);
6. contact is selected over other rewards (as reinterpreted from Zetterberg, 1963, p. 13).

The Measurement of Attitudes

General Considerations

Attitude has been previously defined as a "delimited totality of behavior with respect to something" (Guttman, 1950, p. 51). Responses on an attitude scale are one form of delimited behavior, but the attitude universe may consist of many forms of behavior which are more or less intercorrelated and which form separate sub-universes. An adequate attitude abstraction from this universe should include sampling from each of the possible sub-universes, a task of doubtful empirical possibility. A statement of the conceptual problem, however, points up limitations in the range of inferences one may make from a limited sampling of behavior. There will probably be a relationship between the statements one makes

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

Green (1954, pp. 335-336) makes three other salient points about attitudes, their underlying characteristics, and their relationship to other variables. First, there must be a consistency of responses in respect to some social object. Second, the attitude itself is an abstraction from a set of consistent, or covarying responses. Responses themselves are not attitudes; rather, the attitude is defined by the latent variable. The detection of this latent variable requires certain scale properties. Finally, an attitude differs from other psychological variables (with the exception of value) because it is always in terms of a referrent class of social objects. The approach to attitude assessment known as scalogram analysis (Guttman, 1950, Ch. 3) is consistent with the above considerations, and it is this approach which has been used in respect to the attitude variables employed in this study.

Scale Analysis

The summary presented here is not meant to be exhaustive, but rather, it is intended to demonstrate a rationale and a description of the technique used in this study. The basic reference to this material is the work of Guttman (1950). Discussions of the technique are to be found in Green (1954), Edwards (1957), and Goode and Hatt (1952).

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Scale analysis is a technique for determining whether a set of items can be ordered along a single dimension. A particular universe that is one-dimensional will yield samples that are likewise one-dimensional. The ordering of respondents from one sample should be essentially the same as that obtained from another sample of items from the universe. If predicted ordering does not occur, the universe is judged to be multi-dimensional and therefore not scalable. When items do suggest an underlying single dimension, it is appropriate to describe a respondent with a higher score as possessing more of the characteristic being measured than someone with a lower score.

The Guttman scaling technique focuses on ranking the respondents rather than the 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 item responses of each respondent should be reproducible (allowing about a 10% error factor) from a knowledge of the respondent's total score rank. Guttman has also described the quasi-scale, which may occur when the reproducibility of a scale is lower than the required 90%, but when the errors occur in a random pattern.

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The selection of a criterion of 90% reproducibility is no more an absolute standard than is the selection of an alpha of .05 for the test of significance. With respect to some studies, a lower limit of reproducibility may be quite acceptable, while in other studies, an even higher limit may have to be set to insure desired results. The real criteria with 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 fairly large numbers of errors that occur gradually decrease in number as one moves further and further away from the cutting point. These errors.....do not group together like non-scale errors" (Suchman, 1950, pp. 160-161).

Michigan State University Cross-cultural Studies

The author is greatly indebted to Felty (1965) and Friesen (1966) whose studies served as the basis for a number of cross-cultural investigations currently underway at Michigan State University under the direction of Dr. John E. Jordan. The present study is designed to provide comparative data from the United States. The occupational groups as well as the majority of hypotheses are essentially the same for all of the studies.

Felty (1965) found in Costa Rica that Leadership value was negatively related to "Attitudes Toward Disabled Persons" scores as was hypothesized. He furnished further evidence that persons who score high in need for power and

control over others tend to score low in acceptance of disabled persons. He reported that his study appeared to confirm the negative relationship between comparative values and acceptance of the handicapped, however, the positive relationship between asset values and acceptance of the disabled was not confirmed.

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

Friesen (1966) found in Columbia and Peru, a significant relationship between the combined contact variables (i.e. frequency, enjoyment of, alternatives to, and avoidance of) and favorable attitudes toward handicapped persons. Ease of avoidance (i.e., cost of interaction) contributed most to this relationship.

Friesen also found, as predicted, that females had significantly higher mean scores than males on the Benevolence value scale. Men were found to be less accepting of

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handicapped persons. Contrary to Felty's findings, Friesen found little difference in terms of mean scores between men and women on progressive attitudes toward education, which may indicate differences between men and women in Costa Rica versus Columbia and Peru.

Friesen likewise found a significant relationship between attitudes toward handicapped persons and change orientation items: the more change oriented, the more positive the attitude. Hypotheses concerning the SER group with reference to scores on the HP attitude scale and the value scales were all confirmed, with the SER group being more positive toward the disabled, and more asset and less comparative oriented.

Additional cross-cultural and related studies are nearing completion at Michigan State University utilizing the same general design and instrumentation as the present study. While they were not available for review, they will be listed in the references. One study (Cessna) will use samples from England, Holland, Belgium, France, Denmark, and Yugoslavia. Other studies examine: the attitudes of ministers toward mental retardation (Heater); the attitudes of college counselors (Palmerton); the attitudes of mothers toward various handicaps (Sinha); the differential attitudes of various groups of special educators (Mader); a comparison of the attitudes of special educators versus regular teachers (Green); the relationship between attitudes, values,

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contact and theological orientations (Dean); the degree of integration of handicapped children into regular classes (Proctor); and, attitudes toward general disability versus deafness (Weir). All of these studies, under the direction of Dr. John E. Jordan, are scheduled for completion in 1967 or 1968 and are included here to make them known to the professional community.

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CHAPTER III

METHODOLOGY AND PROCEDURES

The research population consisted of 391 adult men and women employed in selected occupations in the state of Kansas, primarily in the urban and suburban area of Wichita. It was planned to have equal representation from each of the following occupational groups, with at least 100 persons to a group (actual sample representations are shown below):

Research Population

1. Persons working directly in a teaching or training relationship to physically handicapped persons (i.e. professional special education and rehabilitation personnel.
   N - 105

2. Elementary and secondary teachers who are not necessarily in any direct working relationship with physically handicapped persons.
   N - 101

3. Workers employed in the local labor force; salaried white collar workers, skilled laborers, clerical workers, unskilled workers, etc.
   N - 100

4. Executive and managerial personnel engaged primarily in industry.
   N - 85

The rationale for the selection of these occupational groups was based on their relationship, or potential relationship, to the physically handicapped and/or to education as a social institution. Each of the groups have special relationships to rehabilitation and to education. The importance of professionals involved specifically in special education or rehabilitation of the handicapped cannot be overemphasized. This group, in most instances, will make the initial contacts with the physically handicapped outside of the home. The success or failure of the entire adjustment process for the handicapped is, to a great extent, dependent on the positive or negative nature of these initial contacts.

Theoretically, if special education and rehabilitation programs have been successful, with respect to their defined functions, the next group chronologically with important contact will be regular classroom teachers in public elementary and secondary schools. The attitudes which these professionals bring to the classroom will likewise significantly affect the adjustment process of the physically handicapped. The teacher, who either through ignorance or because of negative feelings, questions the presence of a physically handicapped child in her classroom, can cause irreparable damage to the child's self-concept. The writings of various authors (Dickstein and Dripps, 1958; Haring, et al, 1958; Kvaraceus, 1956; Murphy, 1960;

O'Connor and O'Connor, 1961) in addition to the writer's personal experience, suggest that regular class teachers are often threatened by the presence of a physically handicapped child in their rooms. It was considered essential, therefore, to include this group in the study.

Chronologically, persons engaged in business, industry, and professional endeavors (the executive-managerial group) will next have contact with those handicapped persons who are sufficiently rehabilitated to seek admittance to the labor force. It will be this managerial group who will largely determine the vocational-economic adjustment of the physically handicapped. The attitudes these perspective employers hold toward the handicapped will influence their decisions of whether or not to extend employment to this group. There are few situations more frustrating or discouraging than that of a well-trained, highly-qualified handicapped person who is unable to secure employment because of the unwarranted fears and biases of employers. If for whatever reasons, executive and managerial personnel are unwilling to hire the handicapped, the efforts of special education teachers and rehabilitation workers will, to a large measure, be wasted.

Last, but certainly not least important, is the laboring group who are the potential co-workers of the physically handicapped. The attitudes of fellow workers will be another determining factor in the vocational adjustment that the

handicapped will be able to effect. Research has shown that handicapped persons often fail on the job, not because they are unable to carry out their assignments, but rather, because they are unable to get along with their fellow workers and supervisors.

It is felt that the four groups described above represent different stages in the adjustment process faced by the person with a physical handicap. Certainly, there are other groups within the community which play important roles in the adjustment of the handicapped such as the family, social organizations, religious groups, etc. For the purposes of the present study, however, sampling was limited to the aforementioned groups.

These same groups also represent important relationships to education as a social institution. The SER group must fully understand the purposes and goals of general education if they are to effect the integration and assimilation of the handicapped child. The importance of regular class teachers to education should be apparent. The managerial and executive group, due to their position of influence in the community, will frequently have a powerful voice in establishing policy and financial provisions for education. The laboring group represents the largest consumers of American education.

Two further considerations exist which contributed to the preference for these particular groups. First,

it was assumed that different value orientations would be found among persons in these different occupational categories. Secondly, each of the groups represented different kinds of contact and frequencies of contact with the handicapped. It was instrumental to the hypotheses to have these variations within the sample.

Selection of Variables

The theoretically derived variables were those suspected to have some particular relationship to the three criterion variables: (a) attitudes toward physical disability, (b) attitudes toward visual disability, and (c) attitudes toward education. In addition to the three criterion variables, selected additional variables were included which were intended to provide information concerning the characteristics of persons who work with the handicapped, rather than in respect to attitudes toward handicapped persons. These variables are those of: (a) mobility, (b) personalism, (c) institutional satisfaction, (d) religiousity, and (e) change orientation.

The major variables used in the study are discussed in the following section.

Attitudes Toward Physical Disability

The items used in this scale were taken from the Attitudes Toward Disability Scale (Yuker, et al., 1960). Adequate test-retest reliability scores were reported,

and various construct validity measures which were all collected from disabled employees of Abilities, Inc., a light manufacturing company which employs disabled worker. Among these employees, the test was found to be negatively related to age and anxiety, and positively related to verbal intelligence and job satisfaction. Females and those with low absentee rates made higher scores on the instrument. 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 warrants further study.

Modifications were made in the provisions for respondent scoring. The Likert-type format was retained, however, the number of response categories for each item was 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. Since it was intended to submit the items to scale analysis rather than follow the suggested scoring procedures, there was no need to retain the same numerical scores. It was also felt that these modifications would simplify the task for the respondents.

Fifteen of the 20 attitude items are statements of differences between disabled persons and those not disabled, and agreement with these 15 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 (see Kerlinger, 1958, 1961; Kerlinger and Kaya, 1959). These scales were included for three reasons: first, because they are short and simple to administer; second, because in a study so closely interwoven with educational concerns, the results are informative in their own right; third, because there is a rationale for hypothesizing a relationship between progressive attitudes toward education and attitudes toward physical disability. The scales represent a factor analysis of a set of 40 items given to 598 subjects of varying backgrounds, but all apparently of above average education. The scales have been found to hold up under cross-validation; however, there is no indication that persons of lower educational attainment have been adequately represented in the studies. The complete instrument consists of 20 items, of which 10 are "progressive", and 10 are "traditional." As employed in the present study, the progressive and traditional items were analyzed independently as two separate scales.

The Intensity Scales

A simple approximation of the intensity function has been successfully attained by asking a question about intensity after each content question. One form used for an intensity question is simply: "How strongly do you feel about this?" with answer categories of "Very strongly," "Fairly strongly,"

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> and "Not so strongly." Repeating such a question after each content question yields a series of intensity answers. Using the same procedure as . . . for content answers, these are scored and each respondent is given an intensity score. The intensity scores are then cross tabulated with the content scores (Suchman, 1950, p. 219).

This procedure was the one adopted to measure intensity for both the attitude items relating to handicapped persons and to education. The only difference was that four response categories were used instead of the three suggested by Suchman.

Attitudes Toward Visual Disability

The items utilized in this scale were taken from the Attitudes Toward Blindness Scale (Cowen, et al, 1958). The authors were extremely exacting in their construction of this research instrument and demonstrated considerable evidence of construct validity. The authors report split half reliability of .83 before correction and .91 after correction. The original instrument consisted of 100 items administered to college students. The final form consists of the thirty (30) items with the highest intercorrelations. For use in the present study, the twenty items with the highest tetrachoric correlations were selected. Intercorrelations of the items used for the study range from .52 to .75.

Interpersonal Values

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

The second value to be operationalized was that of a "comparative" orientation toward others. The Gordon manual offers the following definition for Recognition value: "Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition" (Gordon, 1960, p. 3). The following definition was offered for Conformity value: "Doing what is socially correct, following regulations closely, doing what is accepted and proper,

being a conformist" (Gordon, 1960, p. 3). Leadership was defined as, "Being in charge of other people, having authority over others, being in a position of leadership or power" (gordon, 1960, p. 3). All three of these values would appear to involve a ranking of others on some kind of absolute scale, either of social acceptability (Conformity), achievement (Recognition), or power (Leadership). On the basis of surface considerations of item content, Recognition and Leadership items were judged to be representative of comparative values.

Personal Contact Variables

Two types of variables related to personal contact were represented by 15 items in the questionnaires. Four items (PQ[1] 1-4) were related to educational contact, nine items (PQ-HP 1-9) were related to contact with physically disabled persons, one item (PQ-HP 10) was related to contact with mentally retarded, and one item (PQ-HP 11) was related to contact with emotionally disturbed persons. Each item generated 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

[1] PQ refers to Personal Questionnaire; PQ-HP refers to Personal Questionnaire-Handicapped Persons.

would persons not working in the field of disability. This was indeed the case in Costa Rica (Felty, 1965) and might be considered an item validation.

Contact With Education

These items (PQ 4-7) requested respondents to indicate: (a) how much they had worked in schools or educational settings- number 4; (b) what percent of income was derived from such work - number 5; (c) how they felt about such work - number 6; and (d) what other work opportunities they could have alternatively chosen - number 7.

Contact With Physically Disabled

These items (PQ-HP 1-9) requested respondents to indicate: (a) the kind of physically handicapped with which they had had the most contact, or knew the most about - numbers 1 and 2; (b) the type of relationship they had had with physically disabled persons - family, friends, working relationships, etc. - number 3; and (c) the approximate number of encounters they had had with physically disabled persons - number 4. Other questions attempted to explore alternative opportunities - number 9, enjoyment of contact with handicapped persons - number 8, ease of avoidance of such contacts - number 5, gain from contact - number 6, and percent of income from working with the handicapped - number 7.

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 supposedly one of the distinguishing characteristics of the "Gemeinshaft", or traditional, orientation (e.g., Loomis, 1960, p. 61ff). Question 21 asked the respondent to indicate the approximate percent of personal interactions on the job which were with persons who were close personal friends. Question 22 asked how important it was to work with persons who were close friends. Question 23 was intended to measure diffuseness or specificity of personal interactions under the hypothesis that the traditionally oriented person is more likely to have personal interactions which are diffused between job and family, or other affective non-job interactions. "Members of the Gemeinshaft-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 interpersonal relationships.

Institutional Satisfaction

This was a set of nine questions (PQ 31: A-I) adapted from Hyman (1955, p. 400). The institutions selected (schools, business, labor, government, health services, and churches) were listed and an opportunity offered to indicate whether they were judged excellent, good, fair, or poor in respect to how well they do their particular job in the community. It was postulated that people working in SER would be less satisfied with institutions generally than people in other groups. Persons with high education in relation to income might also be expected to be less satisfied than others. Again, no reliability estimates are offered, and validity will be a function of concurrent correlation coefficients.

Change Orientation

This set of six questions (PQ 39-43 and 47) were adapted from Programa Interamericano de Informacion Popular (PIIP) in Costa Rica. The respondents were asked to react to a number of statements which purported to reflect attitudes toward change in such areas as health practices, child rearing practices, birth control, automation, political leadership, and self change. Four response alternatives to indicate the degree of agreement were given: strongly

agree, slightly agree, slightly disagree, and strongly disagree. It was postulated that people working in SER would have responses which suggested a greater flexibility and openess toward change. This favorableness toward change would, of course, challenge many existing cultural norms. On the other hand, the M and L group might be expected to respond in ways which suggested resistance to change.

Demographic Variables

Respondents were asked in the PQ to indicate their placement on several variables often found to be of significance in sociological analysis: these were education (26, 27), occupation (37), rental (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 (9). In the dissertation analysis, not all of these variables will be used because of time and space limitations. All of these variables will be utilized more fully in the larger study being conducted by Dr. John E. Jordan, Michigan State University.

Religiosity

Three questions (PQ 18, 19 and 38) were oriented toward religion: (a) religious preference; (b) the felt importance of religion to the respondent; and (c) conformity to the rules and regulations of the church. "Religiosity"

also related to the traditional-modern dimension, and higher scores would be expected among the lower income group, and among persons with less education.

Collection of Data

Data was collected by group administration of the instruments in all instances. A set of procedures (see Appendix C-2) were developed for the administration of the instruments. The instructions consisted of: (a) a statement of appreciation for the cooperation of the group; (b) a general statement of the purpose of the investigation; (c) a statement of the format of the administration; (d) an oral explanation of the various instruments.

The instruments were administered in the following order:

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

An administrator's summary sheet (See Appendix C-7) was developed for the recording of pertinent administration data. This included the names of those who had helped to arrange for the administration, who had assisted with the administration, etc. It included relevant descriptive data about common occupational characteristics and occupational diversity. A final section was for the recording of test conditions: adequacy of lighting, space, ventilation, noise, and any unusual interruptions or difficulties with the administration.

Statistical Procedures

Descriptive

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

Mean Differences Analyses

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

Since a significant F merely shows that the variance projected in the hypothesis is greater than could be expected by chance, the specific relationship between the dependent variable and the variable represented by the levels or groups must be investigated. Duncan's New Multiple Range Test (Edwards, 1960, pp. 136ff), as extended for unequal replications by Kramer (1960), was used to investigate the extent to which a particular subgroup mean contrib-

utes to the total variance represented by the F test. This enables the researcher to order the group means from high to low and then to examine the "difference" between successive pairs of means to ascertain which one(s) do in fact statistically depart from chance at a stated level of significance.

The UNEQI routine (Ruble, Kiel, 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 frequencies, sums, means, standard deviations, sums of squares, and the sums of the squared deviations of the mean were included for each category. The approximate significance probability of the F statistic is also included. This convient figure enables the researcher to know at a glance whether or not the F was significant without referring to a table. For example, if the number printed out was .05, the level of confidence, with appropriate degrees of freedom for a given F, would be .05. However, if .00 was printed out, the level of confidence was to be considered to be .005 or less. An analysis of covariance program (Ruble, Paulson, Rafter, 1966), which allowed for unequal frequencies, was utilized to compute the two-way analysis of variance.

Relational and/or Predictive Analyses

The CDC 3600 MDSTAT program (Ruble and Rafter, 1966) provides a great deal of data which can be gathered from one analysis. Separate analyses can be done for the total group and for any number of specified sub-groups, or partitionings, of the data. For each specified group (i.e., total, male-female, etc.) a number of statistics can be requested. Those used for each partitioning in this research project were: the means and standard deviations for each variable and the matrix of simple correlations between all variables. Tests of significance of the correlation coefficients from zero are the usual ones, with tables entered for the appropriate degrees of freedom.

Partial correlation is also one of the outputs of the general multiple regression model used in the CDC 3600 program at Michigan State University (Ruble, Kiel, Rafter, 1966). One benefit of the use of partial correlation is that a number of variables which are assumed to have some relationship to a criterion, or dependent variable, can be examined simultaneously. Often, when a series of Pearsonian product-moment r's are computed between a criterion and a set of variables considered to be predictors of the criterion, spurious conclusions may be obtained because the predictor variables are themselves interrelated, rather than directly predictive of the criterion.

In a partial correlation solution to the problem, these relationships among the predictor variables are taken into account in computing the true correlation of each variable with the criterion. That is, the effects of all but one variable are held constant.

The use of multiple regression analysis is recommended by Ward (1962, p. 206) because it "not only reduces the dangers inherent in piecemeal research, but also facilitates the investigation of broad problems never before considered 'researchable'."

Several multiple regression analyses were done. The first set of analyses used as a criterion the total raw scores from the handicapped persons scale, the second set used respectively the total scores on the progressive and traditional education scales, the third set used the scores from the change orientation items, and the fourth set used the total raw scores from the blind persons scale. Since the computer program for multiple regression did not handle "missing data", persons with missing data were dropped from the particular multiple regression analysis.

Major Research Hypotheses

Hypotheses Related to Contact Frequency, Intensity and Attitude Scores

H-1a: The more frequent the contact with disabled persons, the higher will be the scores on the intensity statements of the attitude-toward-disabled-persons (ATDP) scale, regardless of whether attitude content is favorable or unfavorable.

H-1a Hypothesis Derivation: From considerations of Rosenberg, Foa, and Guttman and Foa, to the effect that contact frequency is directly related to attitude intensity, regardless of content directions (see Chapter 2).

H-1a Instrumentation: Contact frequency, by a direct question,(i.e. PQ-HP 4, Appendix B-5); ATDP intensity scores obtained through independent intensity questions following each attitude content statement (see Appendix B-4).

H-1b: The more frequent the contact with education, the higher will be the scores on the intensity statements of the Kerlinger Attitudes Toward Education scale, regardless of whether attitude is traditional or progressive.

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

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

H-2a: High frequency of contact with disabled and blind persons will lead to favorable attitudes if high frequency is concurrent with (a) alternate rewarding opportunities, (b) enjoyment of the contact, and (c) ease of avoidance of contact.

H-2a Hypothesis Derivation: From considerations of Homan's, Zetterberg, and various studies in special education (see Chapter 2).

H-2a Instrumentation: Attitudes toward disabled persons, by a 20 statement attitude instrument developed by Yuker, et al (1960) and modified for the present study (Appendix B-4). Attitudes toward blind persons by a 30 statement attitude instrument developed by Cowen, et al (1958) and modified for the present study (appendix B-6). Contact variables by direct questions in the PQ-HP: frequency by question no. 4, alternatives by no. 9, enjoyment by no. 8, and avoidance by no. 5.

H-2b: High frequency of contact with education 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.

H-2b Hypothesis Derivation: Same as H-2a above.

H-2b Instrumentation: Attitudes toward education by a 20 statement attitude instrument developed by Kerlinger (1959) and modified for the present study. Contact variables by direct questions in the PQ: frequency by question no. 4,

alternatives by no. 7, and enjoyment by no. 6.

Hypotheses Related to
Attitudes and Value Scores

H-3a: Persons who score high in the need for power and control over others will tend to score low in acceptance of disabled persons, and blind persons specifically.

H-3b: 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.

H-3a,b Hypotheses Derivation: From considerations of Wright in respect to asset vs comparative valuations of others (see Chapter 2), and of Rosenberg to the effect that the more the belief content of an attitude is instrumental to value maintenance, the more favorable will be the evaluation of the object of the attitude. Persons with high power needs are applying a comparative yardstick in evaluations of others and should be expected to devalue persons with disabilities as well as progressive attitudes toward education since the latter usually implies changes in the status quo. Some empirical findings of this appear in the writings of Whiteman and Lukoff in respect to blindness (see Chapter 2) and Felty (1964).

H-3a,b Instrumentation: Need for power and control measured by the Leadership (L) scale of the Gordon Survey of Interpersonal Values (Appendix B-2); attitudes-toward-

disabled-persons, as in H-2a, attitudes toward education, as in H-2b, and attitudes-toward-blind-persons, as in H-2a.

H-4a: Persons who score high in need for recognition and achievement will tend to score low in acceptance of disabled persons, and blind persons specifically.

H-4b: 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-4a,b Hypotheses Derivation: Same as H-3 above.

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

H-5a: Persons who score high in need to help others, to be generous, will tend to score high in acceptance of disabled persons, and blind persons specifically.

H-5b: 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.

H-5c: Women will score higher than men in (a) the need to help others, (b) positive attitudes toward the disabled, (c) progressive attitudes toward education, and

(d) positive attitudes toward the blind.

H-5a,b,c Hypotheses Derivation: Same as H-4 above, but stated in terms of an asset-value orientation rather than a comparative value orientation.

H-5a,b,c Instrumentation: Need to be helpful and generous measured by Benevolence (B) scale of the Gordon Survey of Interpersonal Values (Appendix B-2), attitudes-toward-disabled-persons as in H-2a, attitudes toward education as in H-2b, and attitudes-toward-blind-persons, as in H-2a.

Hypotheses Related to Change Orientation and Attitude Scores

H-6: Persons who score high on change orientation will score high on positive attitudes toward handicapped and blind persons and progressive educational attitudes and score low on traditional educational attitudes.

H-6 Hypothesis Derivation: Same as H-3 above and extended to connote that high score 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-6 Instrumentation: Change orientation measured by questions 39-43, and 47 in the PQ. These questions deal with change in health practices, child rearing practices, birth control, automation, political leadership, and self change. Attitudes toward the handicapped measured as in H-2a and toward education as in H-2b, and attitudes-toward-blind-persons, as in H-2a.

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

H-7: Persons working directly with disabled and blind persons (SER) will have lower mean attitude-toward-disabled and blind-persons scores than will persons in other occupational categories.

H-7 Hypothesis Derivation: From considerations of Zetterberg (see Chapter 2), to the effect that high frequency of contact is positively associated with favorableness of attitudes if (a) the interaction could be easily avoided, and (b) there are other rewarding activities to engage in. The linkage of (a) and (b) with occupational categories rests on the assumption that a measure of choice and job alternatives was present in the selection of employment; i.e., that SER employees chose this occupation in preference to others.

H-7 Instrumentation: Attitudes-toward-disabled-persons, as in H-2a and attitudes-toward-blind-persons, as in H-2a.

H-8: The SER group will have higher mean score than will persons in other occupational categories in respect to the value of Benevolence (asset value) and lower mean scores in respect to the values of Leadership and Recognition (comparative value).

H-8 Hypothesis Derivation: Same as H-3 above and applied specifically to the SER group rather than to those who measure high on Benevolence and low on Leadership and Recognition.

H-8 Instrumentation: Same as H-3, 4 and 5 for Leadership, Recognition and Benevolence respectively.

H-9a: The SER group will have a higher mean score in progressive-attitudes-toward-education than will persons in other occupational categories.

H-9b: The SER group will have lower mean score in traditional-attitudes-toward-education than will persons in other occupational categories.

H-9a,b Hypotheses Derivation: Same as H-3 and 4 and applied specifically to the SER group rather than to those who measure high on progressive attitudes and low on traditional-attitudes-toward-education.

H-9a,b Instrumentation: Same as H-5b above.

H-10: The SER group will have a higher mean score than will other occupational groups on the following change orientation measures: (a) health practices, (b) child rearing practices, (c) birth control practices, and (d) automation.

H-10 Hypothesis Derivation: Same as H-3a,b,c 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-10 Instrumentation: Change orientation measured by a series of questions in the PQ on the areas stated in H-10 (Appendix B-3).

H-11: The SER group will have higher mean scores than other occupational groups on the amount of contact with mentally retarded and emotionally disturbed persons.

H-11 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-11 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 the PQ-HP.

H-12: Persons whose primary experience has been at the elementary level of education will hold more positive attitudes toward physically handicapped and blind persons than will persons whose primary experience has been at other levels of education or those persons with no primary educational contact.

H-12 Hypothesis Derivation: It is felt that the orientation and experience of persons with primary contact at

the elementary level will be predisposed to more "child-centered" (i.e., asset-minded) orientations with respect to children. On the other hand, it is felt that the training, orientations and experience of persons with primary contact at the secondary or university level predisposes them to more "content-centered" orientations (i.e., comparative-minded) with respect to children.

H-12 Instrumentation: Primary educational contact, by a direct question, i.e. PQ no. 1, attitudes-toward-disabled-persons and attitudes-toward-blind-persons, as in H-2a.

H-13: Persons who have had primary experiences with the blind vs other types of physically handicapped, will hold more positive attitudes toward the blind.

H-13 Hypothesis Derivation: As in H-2a above.

H-13 Instrumentation: Primary contact with handicapped persons, by a direct question, i.e. PQ-HP no. 1 (Appendix B-5), and attitudes-toward-blind-persons, as in H-2a.

CHAPTER IV

ANALYSIS OF THE DATA

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

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

Section 2. the testing of the hypotheses presented at the end of Chapter III and comparisons of mean differences of various scores when the respondents are divided according to (a) sex, (b) interest group (occupational) categories, (c) contact with criterion, and (d) related indices. Correlational relationships (zero order, multiple and partial) will also be presented for selected variables of the study.

Section 1: Descriptive Data

In this section the descriptive characteristics of the sample are presented. The data is derived from a combination of the FCC I and II programs (see p. 65) and the CDC 3600 MDSTAT program which provides a number of statistics (see p. 73) useful for simple demographic description.

Tables 1 and 2 present the two major sub-divisions of the total sample: sex and interest (occupational) groups. Inspection of the tables reveals one major factor

which later will considerably effect the interpretation of the statistical data: the sex-linked character of some of the occupational groups. For those variables or hypotheses in which sex differences are obtained, the sex composition of the interest group would be an important factor in the analysis of the group differences. This is accounted for by use of the two-way analysis of variance procedures.

TABLE 1.--Distribution of respondents according to sex and interest group.[1]

	Interest Group[2]				
Sex	SER	E	M	L	Total
Male	22	36	59	65	182
Female	83	65	41	20	209
Total	105	101	100	85	391

[1] In some instances the N's do not agree exactly between Tables 1, 2 and the tables containing the statistical material in Appendix A. This is due to problems of missing data and minor differences in classification.

[2] Throughout the remainder of the study the following abbreviations will be used to designate the interest groups: SER - Spec. Educ., Rehab; E - Education; L - Labor; M - Manager/Executive

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

Occupation		Frequency by Respondent Groups and Specific Occupation						
Code	Description	SER	E	M	L	Male	Female	Total
(01-09, SER)								
1	Adm. persons	2				2		2
2	Teachers	86				11	75	86
3	School spec. services	11				6	5	11
4	Univ. teachers	3				3		3
7	Para medical	1					1	1
8	Unskilled	1					1	1
9	Other	1				1		1
(10-19, Educators other than SER)								
10	Elem. teachers		76			22	54	76
11	Sec. teachers		20			10	10	20
12	Guidance		1			1		1
14	Adm. persons		3			2	1	3
16	Open		1			1		1
(20-25, Medical, other than Rehab and Special Ed.)								
21	Surgeons			1		1		1
24	All other med. specialties			5		4	1	5
26	Nurse, OT, PT, etc.			8		1	7	8
27	Aides				1		1	1
(30-39, Professional and teachers other than previously listed)								
30	Engineer			7		7		7
31	Lawyers			4		2	2	4
32	Ministers & Clergymen			1		1		1
35	Researchers			3		3		3
37	Other			2		1	1	2

TABLE 2.--(cont.)

Code	Description	SER	E	M	L	Male	Female	Total
(40-49, Business and Industry)								
40	Gov. officials			3		3		3
41	Mfg. exec.			10		9	1	10
42	Non-mfg. exec.			5		4	1	5
43	Retail trades			17		15	2	17
44	Gen. exec.			13		10	3	13
45	Open			3		3		3
46	Farm owner			1		1		1
(50-59, White collar, office, clerical)								
50	Clerical				42	12	30	42
51	Sales worker				14	5	9	14
52	Small dealer				6	5	1	6
54	Open				1	1		1
(60-69, Blue collar, foreman, craftsmen)								
60	Craftsman				7	7		7
61	Foreman				4	3	1	4
63	Mechanics				1	1		1
66	Bus % Cab driver				1	1		1
(70-74, Service, private household)								
71	Private household				1	1		1
73	Misc. attendents				7		7	7
(75-79, Military personnel)								
75	Ranking Officers				1	1		1
76	Junior Officers				1	1		1
78	NCO-Army				5	5		5
(80-86, Laborers)								
80	Small farmers				1	1		1
82	Mfg. durable				5	5		5
83	Mfg. non-durble				1	1		1
84	Non-mfg.				2	2		2
87	Persons who have not worked					1	2	3

Totals	SER	E	M	L	Male	Female	Total
	106	101	83	101	177	216	393

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

Table 3 presents the data for education, income, and age by sex and interest group. The Duncan's New Multiple Range Test has been used to analyze differences between the means in those cases where the F statistic indicated that an overall significant difference existed.

Tables 4-6 present the Duncan's procedures for analysis of the data in Table 3 on education, income and age. Throughout the remainder of the dissertation, the results of the Duncan's analysis will be reported within the tables analyzing mean differences. In each case, the same procedures will have been employed to secure the Duncan's Means Test results. Discussion of the Duncan's analyses will be contained in Chapter V.

Since the data for education and income were analyzed in coded form, an interpretation of the coding is necessary. See Tables 7 and 8 for the education and income codes. The data is presented such that each score represents a range, i.e., number of grades completed or the amount of income. In education, the ranges are also uneven, which makes interpretation somewhat difficult. However, the data is at least ordinal, in that a higher score always represents a higher number of grades that the individual has completed, or the amount of income earned.

TABLE 3.--Comparison of mean differences, standard deviation, and F statistics in respect to three demographic variables for four occupational categories.

Variable	Occupation	N	Mean	Standard Deviation	F one way sex	F two way grp	Sig of F one way sex	Sig of F two way grp
Education	SER	105	6.84	0.912	9.56	131.8	.005	.005
	E	101	6.86	0.600				
	M	87	5.78	0.969				
	L	100	5.03	0.502				
	Total	393	6.15	1.09				
Untested Ranking of Means: E(6.86)>SER(6.84)>M(5.78)>L(5.03)								
Duncan's Means Test*: E-L, E-M, SER-L, M-L								
Income	SER	103	9.25	3.940	0.36	6.76	.56	.005
	E	101	9.82	4.058				
	M	85	11.69	4.435				
	L	98	8.85	5.562				
	Total	387	9.83	4.639				
Untested Ranking of Means: M(11.69)>E(9.82)>SER(9.25)>L(8.85)								
Duncan's Means Test*: M-L, M-R, M-E								
Age	SER	105	36.50	11.996	1.37	19.34	.24	.005
	E	100	37.64	11.822				
	M	87	37.37	10.923				
	L	100	27.01	10.411				
	Total	392	34.56	12.143				
Untested Ranking of Means: M(37.37)>E(37.24)>SER(36.50)>L(27.01)								
Duncan's Means Test*: L-M, L-E, L-SER								

*$P < .05$.

TABLE 4.--Duncan's New Multiple Means Test applied to means of education for four occupational groups.

Range of Mean (p)	2	3	4	d.f. 380
Studentized ranges for 5% test (Zp)[1]	2.77	2.92	3.02	
R'p (RI szp 380)[2]	2.10	2.22	2.30	
Mean Differences[3]				
E - L (p4)			18.30*	
E - M (p3)		10.36*		
SER - L (p3)		18.28*		
E - SER (p2)				
SER - M (p2)	10.70*			
M - L (p2)	7.20*			

[1]Taken from Edwards (1960, p. 373).

[2]The square root mean square of the analysis of variance in Table 3

$$s = \sqrt{.58} = .76$$

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

[3]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 the same column. The formula given by Kramer (1956) is:

$$(Xy-Xz)\sqrt{\frac{2nynz}{ny\ nz}} > szp,\ \text{error d.f. of AOV}_{(zR'p)}$$

*This level of confidence will be used on all Duncan's Multiple Range Tests.

$$p < .05.$$

TABLE 5.--Duncan's New Multiple Means Test applied to means of income scores for four occupational groups.

Range of Mean (p)		2	3	4	d.f.380
Studentized ranges for 5% test (Zp)		2.77	2.92	3.02	
R'p (RI szp 380)		12.46	13.14	13.59	
Mean Differences					
M - L	(p4)			27.30*	
M - SER	(p3)		23.42*		
E - L	(p3)				
M - E	(p2)	17.95*			
E - SER	(p2)				
SER - L	(p2)				

*P < .05. $s = \sqrt{20.69} = 4.5$

TABLE 6.--Duncan's New Multiple Means Test applied to means of age scores for four occupational groups.

Range of Mean (p)		2	3	4	d.f.385
Studentized ranges for 5% test (Zp)		2.77	2.92	3.02	
R'p (RI szp 385)		31.30	32.99	34.12	
Mean Differences					
M - L	(p4)			99.45*	
M - SER	(p3)				
E - L	(p3)		102.30*		
M - E	(p2)				
SER - E	(p2)	95.85*			
SER - L	(p2)				

*P < .05. $s = \sqrt{128.79} = 11.3$

TABLE 7.--Interpretation of education scores in terms of actual educational attainment.

Score	Interpretation	Range of Interval
1	Less than 4 years completed	0 - 3 inclusive
2	From 4 to 6 years completed	4 - 6 inclusive
3	From 7 to 9 years completed	7 - 9 inclusive
4	From 10 to 11 years completed	10 - 11 inclusive
5	Some college or university	12 - 15 inclusive
6	College or university degree	16 - - - -
7	Post-degree study	- - - - - -
8	Advanced degree	- - - - - -

TABLE 8.--Interpretation of income scores in terms of actual income level.

Score	Interpretation	Range of Interval
1	Less than $1,000	01
2	From $1,000 to $1,999	02
3	From $2,000 to $2,999	03
4	From $3,000 to $3,999	04
5	From $4,000 to $4,999	05
6	From $5,000 to $5,999	06
7	From $6,000 to $6,999	07
8	From $7,000 to $7,999	08
9	From $8,000 to $8,999	09
10	From $9,000 to $9,999	10

Summary of Description Data in Tables 3-8

The results of these tables must be interpreted with some caution, primarily because of the difficulties encountered in testing the interaction between sex and occupation. The occupational categories are unequal, and the sex distribution within categories is unequal. Additionally, there is the important question of the sex-linked character of some of the occupational categories. However this is controlled for by two-way analysis of variance.

For those variables in which sex differences are obtained, the sex composition of the interest groups is an important factor in the analysis of group differences. The converse would, of course, also hold, since respondents are the same in each case, but only classified differently. Thus, in a given case where both occupational and sex classifications show significant F values, it is not possible to fully determine whether the differences occur independently, or are obtained for the other classification because of the interactions involved. It will be noted from the tables that the actual significance levels of the F values are printed out rather than indicating if they are significant at a stated level, i.e., .01 or .05. Since the computer program now provides this information, it was decided to present the actual significance values to enable the reader to make his own judgement when the level "just-makes" or "just-does-not-make" a previously stated acceptable level of statistical significance.

Tables 3-6 indicate that the E group has a higher educational attainment level than do the other occupational groups, and also that there is a significant difference between the educational levels of males and females. The economic level of the M group is higher than the other occupational groups. No significant difference in income level was noted with respect to sex. Little difference was noted in age between the SER, E and M groups. The L group, however, was considerably younger than the other categories. Again, no significant differences in age between sexes were noted.

Section 2: Hypotheses Testing, Mean Differences and Correlational Analysis

It was originally intended to use Guttman scale analysis procedures on the data. Since the computer programs are not yet available at the Michigan State University Computer Center, this part of the data analysis was not completed. However, the data will be submitted to scale analysis later in the larger international study discussed in Chapter III

H-1a: The more frequent the contact with disabled persons, the higher will be the scores on the intensity statements of the attitudes-toward-disabled-persons (ATDP) scale, regardless of whether attitude content is favorable or unfavorable.

Results indicated in Table 9 reveal that no significant difference was found between persons with high and low contact with disabled persons on intensity scores for the attitudes-toward-disabled-persons scale. H-1a cannot be considered supported.

TABLE 9.--Means, standard deviation, 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
Low frequency of contact	76	60.33	7.49	.36	.56
High frequency of contact	140	59.67	7.77		
Total	216	59.90	7.60		

H-1b: The more frequent the contact with education, the higher will be the scores on the intensity statements of the Kerlinger Attitudes Toward Education Scale, regardless of whether attitude is traditional or progressive.

H-1b cannot be considered supported. The F statistic, Tables 10 and 11, indicates that the mean differences between persons with high and low contact with education, are not significantly different on either progressive or traditional intensity scores. While not statistically significant, the mean scores for both scales fall in the predicted direction.

TABLE 10.--Means, standard deviation, 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
Low frequency of contact	62	32.82	3.20	.26	.61
High frequency of contact	224	33.06	3.26		
Total	286	33.01	3.24		

TABLE 11.--Means, standard deviations, and F statistic comparing high and low frequency of contact with education with intensity scores on the traditional-attitude-toward-education scale.

Variable	N	Mean of Traditional Intensity Scale	Standard Deviation	F	Sig of F
Low frequency of contact	62	31.24	3.75	1.04	.31
High frequency of contact	224	31.79	3.74		
Total	286	31.67	3.74		

Table 12 presents the zero-order correlations between contact and intensity scores on the attitude-toward-disabled-persons scale and the correlations between contact scores and intensity scores for both progressive and traditional-attitude-toward-education scores for the various occupational groups. The correlations for males and females within each group are also given.

Table 12 indicates a significant negative correlation between the contact and intensity scores of the ATDP scale for the SER group. The correlations between contact and intensity scores of the ATDP scale were non-significant for all other occupational categories.

Table 12 also indicates that there was a significant relationship between contact scores and intensity scores on both the progressive and traditional-attitude-toward-education scales for the SER and E groups. The correlations between contact and intensity scores on the educational attitude scales were non-significant for the M and L groups.

TABLE 12.--Zero-order correlations between contact and intensity scores on the attitude scales for the different occupational groups.

	ATDP Scale		Education Scales			
			Progressive		Traditional	
	r	N	r	N	r	N
SER group						
Male	.04*	21	.06*	22	-.13*	22
Female	-.24*	81	.28*	80	.22*	81
Total	-.19*	102	.22*	102	.19*	103
E group						
Male	-.13	32	.25*	35	.20*	35
Female	.001	59	.20*	65	.28**	64
Total	-.06	91	.22*	100	.26*	99
M group						
Male	.07	49	-.12	23	.03	23
Female	-.04	18	-.14	8	.01	8
Total	.07	67	-.09	31	.05	31
L group						
Male	-.10	47	-.10	25	-.09	29
Female	.13	30	.12	25	.12	25
Total	-.0003	77	-.01	50	-.02	50

* $p < .05$.

** $p < .05$.

H-2a: High frequency of contact with disabled and blind 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.

As indicated in Table 13, the multiple correlation relating to the combined contact variables and favorableness of attitudes toward handicapped persons is significant at the .005 level. As seen from Table 14, enjoyment of contact when partialled out contributes most to the multiple correlation. Ease of avoidance and alternative rewarding opportunities when partialled out also contribute significantly to the multiple correlation. Table 13 also reveals that the multiple correlation relating to the combined contact variables and favorableness of attitudes toward blind persons is significant at the .005 level. Table 14 indicates that the contact variables referring to enjoyment and alternative opportunities both contribute significantly to the multiple correlation. H-2a is supported.

H-2b: High frequency of contact with education, both progressive and traditional, will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, and (b) enjoyment of the contact.

The multiple correlation in Table 13 indicates that the correlations between both progressive and traditional attitudes toward education and the combined contact variables

are statistically non-significant. Examination of Table 14 indicates that, although not significant, alternatives to contact contribute most to the multiple correlation, with respect to progressive attitudes toward education. Again, while not significant, alternative rewarding opportunities contribute most to the multiple correlation with respect to traditional educational attitudes. H-2b is not supported.

TABLE 13.--Multiple correlations for combined contact variables with attitudes toward disabled persons, blind persons, and toward education (progressive and traditional)

Variable	N - 395
H. P. attitudes and combined contact variables	.28*
B. P. attitudes and combined contact variables	.25*
Traditional Ed. attitudes and combined contact variables	.07
Progressive Ed. attitudes and combined contact variables	.02

*$p < .005$

TABLE 14.--Partial correlations between attitude-toward-disabled-persons, attitude-toward-blind-persons, and attitude toward education (both progressive and traditional) as related to contact variables.

Handicapped Persons Scale (dependent)	N - 396
Amount of contact	-.06
Avoidance of contact	-.13**
Enjoyment of contact	-.20***
Alternatives to contact	.11
Blind Persons Scale (dependent)	N - 396
Amount of contact	-.08
Avoidance of contact	-.07
Enjoyment of contact	-.17***
Alternatives to contact	.13**
Progressive Educational Attitude (dependent)	N - 396
Amount of contact	.000
Enjoyment of contact	-.004
Alternatives to contact	.02
Traditional Educational Attitudes (dependent)	N - 396
Amount of contact	-.007
Enjoyment of contact	-.02
Alternatives to contact	-.07

*$p \leq .05$
**$p \leq .01$
***$p \leq .005$

H-3a: Persons who score high in need for power and control over others will tend to score low in acceptance of disabled persons and blind persons specifically.

The results presented in Tables 15 and 16 do not support the above stated hypothesis. There were no significant differences between high and low scores on Leadership value and attitudes toward disabled persons and blind persons. H-3a is not confirmed.

TABLE 15.--Means, standard deviations, and F statistic comparing high and low scores on Leadership value and attitudes-toward-disabled-persons score.

Variable	N	Mean of ATDP Scale[1]	Standard Deviation	F	Sig of F
Low Leadership value scores	107	45.64	4.79	.0004	.93
High Leadership value scores	100	45.66	5.01		
Total	207	45.65	4.89		

[1]Low scores indicate more favorable attitude.

TABLE 16.--Means, standard deviations, and F statistic comparing high and low scores on Leadership value and attitudes-toward-blind-persons scores.

Variable	N	Mean of ATBP Scale	Standard Deviation	F	Sig of F
Low Leadership value scores	108	41.37	6.32	.061	.79
High Leadership value scores	99	41.56	6.74		
Total	207	41.49	6.51		

H-3b: 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.

As indicated by Tables 17 and 18, there were no significant differences between persons with high scores on Leadership value and persons with low scores on Leadership value as far as the progressive-attitude-toward-education scores or traditional-attitude-toward-education scores were concerned. H-3b is not confirmed.

TABLE 17.--Means, standard deviations, and F statistic comparing high and low scores on Leadership value and progressive-attitude-toward-education scores.

Variable	N	Mean of Progressive Scale	Standard Deviation	F	Sig of F
Low Leadership value scores	108	30.05	2.93	.12	.73
High Leadership value scores	100	30.21	3.44		
Total	208	30.13	3.18		

TABLE 18.--Means, standard deviations, and F statistic comparing high and low scores on the Leadership value and traditional-attitude-toward-education scores.

Variable	N	Mean of Traditional Scale	Standard Deviation	F	Sig of F
Low Leadership value scores	108	27.41	2.69	.08	.77
High Leadership value scores	100	27.52	3.16		
Total	208	27.46	2.92		

H-4a: Persons who score high in need for recognition and achievement will tend to score low in acceptance of disabled persons and blind persons specifically.

The results in Tables 19 and 20 do not support the above stated hypothesis. There were no significant differences between high and low scores on Recognition value and attitudes toward disabled persons and blind persons. H-4a is not confirmed.

TABLE 19.--Means, standard deviations, and F statistic comparing high and low scores on Recognition value and scores on the attitude-toward-disabled-persons scale.

Variable	N	Mean of ATDP Scale[1]	Standard Deviation	F	Sig of F
Low Recognition value scores	96	44.86	5.61	2.11	.14
High Recognition value scores	81	46.05	5.15		
Total	177	45.41	5.42		

[1]Low scores indicate more favorable attitude.

TABLE 20.--Means, standard deviations, and F statistic comparing high and low scores on Recognition value and scores on the attitude-toward-blind-persons scores.

Variable	N	Mean of ATBP Scale[1]	Standard Deviation	F	Sig of F
Low Recognition value scores	97	41.39	6.56	.009	.89
High Recognition value scores	80	41.29	6.51		
Total	177	41.34	6.52		

[1]Low scores indicate more favorable attitude.

H-4b: 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 scores.

As presented in Tables 21 and 22, there were no significant differences between persons who scored high and those who scored low on Recognition value compared with either progressive or traditional attitudes toward education. H-4b is not confirmed.

TABLE 21.--Means, standard deviations, and F statistic comparing high and low scores on Recognition value and scores on the progressive-attitude-toward-education scale.

Variable	N	Mean of Progressive Scale	Standard Deviation	F	Sig of F
Low Recognition value scores	97	31.05	3.35	2.55	.11
High Recognition value scores	81	30.25	3.34		
Total	178	30.68	3.36		

TABLE 22.--Means, standard deviations, and F statistic comparing high and low scores on Recognition value and scores on the Traditional-attitude-toward-education scale.

Variable	N	Mean of Traditional Scale	Standard Deviation	F	Sig of F
Low Recognition value scales	97	27.40	3.61	.06	.80
High Recognition value scores	81	27.52	2.71		
Total	178	27.45	3.23		

H-5a: Persons who score high in need to help others, to be generous, will tend to score high in acceptance of disabled persons and blind persons specifically.

As indicated in Table 23, a significant difference was found between the means of those who scored high and those who scored low on Benevolence value when compared with scores on the ATDP scale. This difference was in the direction of the hypothesis. Table 24 reveals there were no differences between the means of those who scored high and those who scored low on Benevolence value when compared to the scores on the ATBP scale. H-5a is considered partially confirmed.

TABLE 23.--Means, standard deviations, and F statistic comparing high and low scores on the Benevolence value and scores on the attitude-toward-disabled-persons scale.

Variable	N	Mean of ATDP Scale[1]	Standard Deviation	F	Sig of F
Low Benevolence value scores	98	46.04	5.02	4.1	.05
High Benevolence value scores	130	44.67	5.05		
Total	228	45.45	5.07		

[1]Low scores indicate more favorable attitude

TABLE 24.--Means, standard deviations, and F statistic comparing high and low scores on Benevolence value and scores on the attitude-toward-blind-persons scale.

Variable	N	Mean of ATBP Scale[1]	Standard Deviation	F	Sig of F
Low Benevolence value scores	129	41.37	6.44	.35	.56
High Benevolence value scores	99	40.88	5.65		
Total	228	41.16	6.10		

[1]Low scores indicate more favorable attitude.

H-5b: 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.

As indicated by Tables 25 and 26, there were no significant differences between persons who scored high and those who scored low on Benevolence value compared with either progressive attitude or traditional-attitude-toward-education scores. H-5b is not supported.

TABLE 25.--Means, standard deviations, and F statistic comparing high and low scores on Benevolence value and scores on the progressive-attitude-toward-education scale.

Variable	N	Mean of Progressive Scale	Standard Deviation	F	Sig of F
Low Benevolence value scores	130	30.21	3.26	1.30	.25
High Benevolence value scores	99	30.70	3.03		
Total	229	30.42	3.17		

TABLE 26.--Means, standard deviations, and F statistic comparing high and low scores on Benevolence value and scores on the traditional-attitude-toward-education scale.

Variable	N	Mean of Traditional Scale	Standard Deviation	F	Sig of F
Low Benevolence value scores	130	27.33	3.07	.29	.59
High Benevolence value scores	99	27.09	3.61		
Total	229	27.23	3.31		

H-5c: Women will score higher than men in (a) the need to help others, (b) positive attitudes toward the disabled, (c) progressive attitudes toward education, and (d) positive attitudes toward blind persons.

Table 27 indicates that women did have significantly higher Benevolence scores than did men as hypothesized. Women likewise had significantly lower scores on the attitudes-toward-disabled-persons scale (i.e., the lower the score the more positive the attitude) which was also in the direction of the hypothesis. Women also had a significantly higher mean score on the progressive-attitude-toward- education scale. Lastly, as hypothesized, women had significantly lower (more positive) scores on the attitudes-toward-blind-persons scale.

Hypothesis 5c, all parts, is confirmed in that women did express a greater need to help others, as measured by the scores on the Benevolence scale, did express more positive attitudes toward disabled persons, and blind persons, as measured by the ATDP and ATBP scales, and did express more progressive attitudes toward education, as measured by the PATE scale.

TABLE 27.--Means, standard deviations, and F statistics for Benevolence value scores, ATDP scale scores, progressive-attitude-toward-education scale scores, and ATBP scale scores for males and females.

Variable	Sex	N	Mean	Standard Deviation	F	Sig of F
Benevolence	male	181	17.26	6.67	16.43	.005
	female	207	19.84	5.86		
	total	388	18.64	6.38		
ATDP Scale[1]	male	183	46.04	5.01	7.75	.01
	female	209	44.58	5.32		
	total	392	45.26	5.22		
Progressive Attitudes Toward Education	male	183	30.16	3.63	4.05	.05
	female	210	30.85	3.11		
	total	393	30.53	3.73		
ATBP Scale[1]	male	180	42.00	6.53	13.12	.005
	female	209	39.76	5.63		
	total	389	40.79	6.16		

[1]Low scores indicate more positive attitude

H-6a: Persons who score high on change orientation will also score high on positive attitudes toward handicapped persons and blind persons specifically.

As indicated in Table 28, the multiple correlation between the change orientation variables and HP attitudes is significant at the .05 level. Table 29 reveals that variables referring to automation and to self change both contribute significantly to the multiple correlation. Table 28 likewise indicates that the multiple correlation between the change variables and BP attitudes is significant at the .005 level. Table 29 reveals that the variables referring to automation and political leadership both contribute significantly to the multiple correlation. H-6a confirmed.

H-6b: Persons who score high on change orientation will also score high on progressive attitudes toward education and low on traditional attitudes toward education.

As presented in Table 28, the multiple correlation between change orientation variables and traditional education attitudes is significant at the .05 level. Table 29 shows that the variable refering to birth control practices is the only variable contributing significantly to the multiple correlation. Table 28 also reveals that the multiple correlation between the change orientation variables and progressive attitudes toward education is sig-

nificant at the .005 level. Table 29 indicates that the variables refering to health practices and child rearing practices both contribute significantly to the multiple correlation. H-6b is confirmed.

TABLE 28.--Multiple correlations of change orientation variables with attitudes-toward-disabled persons, toward blind persons, and toward education (progressive and traditional).

Variable	N - 396
H.P. attitude and change orientation	.18*
B.P. attitude and change orientation	.22**
Traditional Ed. attitude and change orientation	.20*
Progressive Ed. attitude and change orientation	.27**

*$p < .05$

**$p < .005$

TABLE 29.--Partial correlations between attitude-toward-disabled persons, toward blind persons, and toward education (both progressive and traditional) as related to change orientation variables.

Handicapped Persons Scale (dependent)	N - 396
Health practices	-.03
Child rearing practices	.03
Birth control practices	-.04
Automation	-.13**
Political leadership	.01
Self change	-.11*

Blind Persons Scale (dependent)	N - 396
Health practices	-.07
Child rearing practices	.05
Birth control practices	.07
Automation	-.12*
Political leadership	.11*
Self Change	-.09

Traditional Ed. Attitudes (dependent)	N - 396
Health practices	-.04
Child rearing practices	-.08
Birth control practices	.12**
Automation	-.08
Political leadership	-.00
Self change	-.03

Progressive Ed. Attitudes (dependent)	N - 396
Health practices	.14**
Child rearing practices	.15**
Birth control practices	-.04
Automation	.09
Political leadership	.03
Self change	.06

*p <.05
**p <.01

Summary of zero-order correlations between attitudes and values

Tables 30 and 31 summarize the relationship between attitudes and values. They show a significant relationship between negative attitudes toward handicapped persons, as measured by the ATDP scale, and the Support value for the male sample of the E group. A significant negative relationship existed between traditional educational attitudes and the Support value for the female sample of the SER group. A significant negative relationship also existed between progressive educational attitudes and the Support value for the M group.

A significant relationship existed between traditional educational attitudes and the Conformity value for the SER group. A significant negative relationship existed between progressive educational attitudes and the Conformity value for the L group. This finding is consistent with the hypothesis.

There was a significant positive relationship between Recognition value and attitudes toward handicapped persons for the SER group. This relationship was not in the hypothesized direction.

While the correlation was not significant, it is interesting to observe that the relationship between attitudes toward handicapped persons and the Benevolence value for the SER group was negative. This finding is in the

opposite direction of the hypothesis. Again, while not significant, the relationship between Benevolence value and progressive educational attitudes was positive which is in the direction of the hypothesis. A significant positive relationship also existed between Benevolence value and progressive educational attitudes for the M group, and between Benevolence value and traditional educational attitudes for the female sample of the L group.

For the L group, Leadership value correlated negatively with traditional educational attitudes for the female sample.

TABLE 30.--Zero-order correlations between ATDP[1] (content) and the Gordon Survey of Interpersonal Values scale

Group	Support Value		Conformity		Recognition		Independence		Benevolence		Leadership	
	r	N	r	N	r	N	r	N	r	N	r	N
SER												
Male	.152	22	-.300	22	.662**	22	.000	22	-.386	22	.060	22
Female	.058	79	-.061	79	.116	79	.019	79	-.132	79	-.103	79
Total	.009	101	-.075	101	.260**	101	-.004	101	-.174	101	-.111	101
Ed												
Male	.485**	35	-.101	35	.356*	35	-.044	35	-.233	35	-.188	35
Female	.002	63	.224	63	-.182	63	.014	63	.106	63	-.131	63
Total	.113	98	.140	98	-.032	98	.001	98	.017	98	-.121	98
M												
Male	-.166	65	.114	65	.002	65	.062	65	-.208	65	.147	65
Female	.116	20	-.013	20	.180	20	-.410	20	-.114	20	-.106	20
Total	-.107	85	.087	85	.044	85	-.179	85	-.161	85	.076	85
L												
Male	.089	58	.224	58	.187	58	-.109	58	-.130	58	-.138	58
Female	.078	41	.014	41	.131	41	-.228	41	.034	41	.042	41
Total	-.018	99	.104	99	.181	99	-.165	99	-.173	99	.097	99

[1]High HP scores indicate negative attitude

*$p \leq .05$
**$p \leq .01$

TABLE 31.--Zero-order correlations between attitudes-toward-education (content) and the Gordon Survey of Interpersonal Values scale.

Group	Support		Conformity		Recognition		Independence		Benevolence		Leadership	
	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad
SER												
Male (N-22)	.024	.038	.362	-.061	-.365	.305	.200	-.112	.289	-.141	.219	.113
Female (N-79)	-.020	-.213	-.076	.404**	.031	-.091	-.040	.166	.046	.011	.074	.073
Total (N-101)	-.040	-.148	-.025	.333**	-.051	-.023	-.049	-.171	.070	.007	.071	-.084
Ed												
Male (N-35)	-.076	-.161	.050	.124	-.244	-.001	.186	-.066	-.123	-.027	.024	.121
Female (N-63)	-.060	-.141	-.054	.125	-.145	-.084	.126	.036	-.115	-.003	.193	.030
Total (N-98)	-.025	-.117	.028	.147	-.165	-.046	.113	-.031	-.098	.000	.043	.018
M												
Male (N-65)	-.164	.257*	-.174	.063	-.001	.016	-.003	.024	.241	-.071	.005	-.147
Female (N-20)	-.746**	.041	.083	.101	-.421	.350	.126	-.261	.268	-.163	.137	.094
Total (N-85)	-.280**	.162	-.115	.083	-.089	.090	.034	-.101	.239*	-.080	.049	-.072

TABLE 31.--(cont.)

Group	Support		Conformity		Recognition		Independence		Benevolence		Leadership	
	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad
L												
Male (N-58)	-.001	.002	-.304*	.324*	.176	-.046	.114	-.155	.038	-.045	.169	-.054
Female (N-41)	.005	-.023	-.386*	.457**	.123	-.208	.225	-.239	-.157	.305*	.224	-.386*
Total (N-99)	.006	-.029	-.332**	.363**	-.063	-.096	.155	-.187	-.018	.038	.153	-.090

*p < .05

**p < .01

Hypotheses related to characteristics of persons working directly with disabled persons (SER group)

H-7a: The SER group will have a lower mean attitude-toward-disabled-persons score than will persons in other occupational categories.

This hypothesis was tested by means of analysis of covariance using the Michigan State University CDC 3600 computer program for unequal replications (Ruble, Paulson, Rafter, 1966). Duncan's New Multiple Range Test (Edwards, 1960, pp. 136 ff), as extended for unequal replications by Kramer (1956) is utilized in cases where significant group F's are found.

Table 32 reports mean scores, standard deviations, and rankings of means for all groups. This table also summarizes the analysis of covariance calculations and significant differences between means indicated by Duncan's Test.

As indicated from Table 32, the group F for the two-way analysis of variance (AOV) was not statistically significant, which suggests that the subgroup means come from a common population. While not significant, the ranking of the means falls in the direction of the hypothesis. Since no significant group differences were found, the Duncan's New Multiple Range Test was not applied. The differences between sexes, however, were significant at the .01 level. This suggests that attitudes toward disabled persons may be

more related to the sex rather than to the occupational category of respondents. H-7a is not confirmed.

TABLE 32.--Means, standard deviations, and F statistic for attitude-toward-disabled-persons scores for the four occupational categories.

Occupational Category[1]	N	Mean Score[2]	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
SER	104	44.49	4.60	7.82	.711	.01	.55
E	100	45.73	5.01				
M	87	45.79	5.19				
L	100	45.29	6.05				
Total	391	45.30	5.24				

Untested Ranking of Means: M(45.79)>E(45.73)>L(45.29)>SER(44.49)

[1]SER - Spec. Ed., Rehab
E - Education
L - Labor
M - Managerial

[2]High scores on the attitude-toward-disabled-persons scale refer to negative attitudes. The lower the score, the more positive (as measured by this scale) the attitudes toward disabled persons.

H-7b: The SER group will have a lower mean attitude-toward-blind-persons score than will persons in other occupational categories.

Results in Table 33 indicate that both sex and group differences are statistically significant. The E group, however, had the lowest mean score rather than the SER group as was hypothesized. The Duncan's Multiple Means Test indicates

that a significant difference exists between the M group and the E group, between the M group and the SER group, and between the M group and the L group. No other significant differences were noted. Since the differences between sexes is significant, the reader is reminded of the interpretive caution outlined on p. 88. It is possible that the sex composition of the occupational groups contribute heavily to the obtained group differences. H-7b cannot be considered confirmed.

TABLE 33.--Means, standard deviations, F statistics and Duncan's Multiple Means Test for attitude-toward-blind-persons scores for the four occupational categories.

Occupational Category	N	Mean Score[1]	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
SER	104	40.17	5.67	14.15	4.01	.005	.01
E	99	39.99	4.50				
M	85	43.47	6.55				
L	100	40.18	7.10				
Total	388	40.85	6.15				

Untested Ranking of Means: M(43.47)>L(40.85)>SER(40.17)>E(39.99)

Duncan's Test*: M-E, M-R, M-L

[2]High scores on the attitude-toward-blind-persons scale refer to negative attitudes. The lower the score, the more positive (as measured by this scale) the attitudes toward blind persons.

*$p < .05$

H-8: The SER group will have a higher mean score than will persons in other occupational categories in respect to the value of Benevolence, and lower mean scores in respect to the values of Leadership and Recognition.

Table 34 indicates that no significant differences between the occupational groups were found for Benevolence value. The mean rankings, however, were in the predicted direction. Sex differences were significant at the .005 level suggesting that Benevolence value is more related to sex than to occupational classification. H-8 for Benevolence value is confirmed directionally but not statistically.

As indicated by Table 35, neither sex nor group differences were statistically significant with respect to Recognition value. While not statistically significant, the mean rankings fall in the hypothesized direction. H-8 for Recognition value is likewise confirmed directionally but not statistically.

Table 36 indicates that both sex and group differences are significant at the .005 level. The Duncan's Multiple Means test reveals that a significant difference exists between the M group and the SER group, between the M group and the E group, between the L group and the SER group, between the M group and the L group, and between the L group and the E group. No significant difference was found between the SER group and the E group. H-8 for Leadership value is considered partially confirmed.

TABLE 34.--Means, standard deviations, and F statistic for Benevolence value scores for the four occupational groups.

Occupational Category	N	Mean Score	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
SER	102	20.13	5.32	17.62	1.67	.005	.17
E	99	19.26	6.56				
M	87	17.67	6.32				
L	99	17.39	6.96				
Total	387	18.65	6.37				

Untested Ranking of Means: SER(20.13)>E(19.26)>M(17.67)>L(17.39)

TABLE 35.--Means, standard deviations, and F statistic for Recognition value scores for the four occupational groups

Occupational Category	N	Mean Score	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
SER	102	10.33	3.92	.85	.47	.36	.71
E	99	10.49	4.46				
M	87	10.83	4.48				
L	99	11.04	5.12				
Total	387	10.66	4.50				

Untested Ranking of Means: L(11.04)>M(10.83)>E(10.49)>SER(10.33)

TABLE 36.--Means, standard deviations, F statistics, and Duncan's Multiple Means Test for Leadership value for the four occupational groups.

Occupational Category	N	Mean Score	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
SER	102	10.08	6.42	82.76	5.25	.005	.005
E	99	10.27	6.46				
M	87	16.38	7.37				
L	99	13.88	8.75				
Total	387	12.52	7.72				

Untested Ranking of Means: M(16.38)>L(13.88)>E(10.27)>SER(10.08)

Duncan's Test*: M-R, M-E, L-R, M-L, L-E

*$p < .05$

H-9a: The SER group will have a higher mean score on progressive-attitude-toward-education than will persons in other occupational categories.

Table 37 lists means, standard deviations, F statistics, and Duncan's analysis for progressive-attitude-toward-education scores according to occupational categories. Significant differences were found for both sex and occupational classifications on this variable. The Duncan's Multiple Means Test reveals that significant differences exist between the SER group and the L group, between the SER group and the M group, between the E group and the L group, and between the E group and the M group. No significant differences, however, were found between the SER group and the E group. H-9a is considered partially confirmed.

TABLE 37.--Means, standard deviations, F statistics and Duncan's Multiple Means Test for progressive-attitude-toward-education scores for the four occupational groups.

Occupational Category	N	Mean Score	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
SER	104	31.17	3.18	4.03	4.59	.05	.005
E	101	31.15	2.98				
M	87	29.52	3.69				
L	100	30.04	3.35				
Total	392	30.51	3.36				

Untested Ranking of Means: SER(31.17)>E(31.15)>L(30.04)>M(29.52)

Duncan's Test*: R-L, R-M, E-L, E-M

*$p < .05$

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

Table 38 indicates a significant difference between the means of the four occupational groups. The Duncan's Multiple Means Test reveals that significant differences exist between the M group and the SER group, between the M group and the E group, between the L group and the SER group, and between the M group and the L group. No significant difference was found between the SER group and the E group. The ranking of the means, however, was in the predicted direction. H-9b is partially confirmed.

TABLE 38.--Means, standard deviations, F statistics, and Duncan's Multiple Means Test for traditional-attitude-toward-education scores for the four occupational groups.

Occupational Category	N	Mean Score	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
SER	105	26.51	2.73	1.76	8.51	.18	.005
E	101	26.94	3.79				
M	87	28.80	3.00				
L	100	27.54	2.84				
Total	393	27.39	3.22				

Untested Ranking of Means: M(28.80)>L(27.54)>E(26.94)>SER(26.51)

Duncan's Test*: M-R, M-E, L-R, M-L

*$p < .05$

H-10: The SER group will have higher mean scores than other occupational groups on the following change orientation variables: (a) health practices, (b) child rearing practices, (c) birth control practices, and (d) automation.

Table 39 reveals that statistically significant differences were found only for the change oriented variable related to health practices. The Duncan's Test indicated, however, that significant differences exist only between the SER group and the M group and between the E group and the M group.

While no significant differences were noted, the mean rankings for the change variable related to child rearing practices were in the predicted direction.

TABLE 39.--Means, standard deviations, F statistics, and Duncan's Multiple Means Test related to four change variables for the four occupational groups.

Variable	Group	N	Mean Score	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
Health Practices	SER	105	3.62	.74	2.79	2.64	.09	.05
	E	101	3.58	.78				
	M	87	3.27	.88				
	L	100	3.45	.82				
	Total	393	3.49	.81				
Untested Ranking of Means:			SER(3.62)> E(3.58)> L(3.45)> M(3.27)					
Duncan's Test*:			R-M, E-M					
Child Rearing Practices	SER	105	2.98	.77	.35	1.03	.56	.38
	E	101	2.98	.77				
	M	87	2.86	.82				
	L	99	2.82	.82				
	Total	392	2.91	.80				
Untested Ranking of Means:			SER(2.98)> E(2.98)> M(2.86)> L(2.82)					
Birth Control Practices	SER	105	1.63	.67	5.05	1.89	.03	.13
	E	100	1.60	.67				
	M	87	1.64	.68				
	L	100	1.75	.78				
	Total	392	1.65	.70				
Untested Ranking of Means:			L(1.75)> M(1.64)> SER(1.63)> E(1.60)					
Automation	SER	105	3.23	.72	.28	1.29	.60	.28
	E	101	3.39	.71				
	M	87	3.21	.82				
	L	100	3.18	.88				
	Total	393	3.25	.78				
Untested Ranking of Means:			E(3.39)> SER(3.23)> M(3.21)> L(3.18)					

*$p < .05$

Table 39 also indicates that the L group had the highest mean score on the birth control variable. This finding was in the direction of the hypothesis.

Likewise the E group had the highest mean score on the change variable related to automation. This finding was contrary to the hypothesis.

The only variable on which H-10 can be considered partially confirmed is in the case of health practices. This variable was in the direction of the hypothesis in that the SER group had the highest mean score.

H-11: The SER group will have higher mean scores than other occupational groups on the amount of contact with Mentally Retarded and Emotionally Disturbed Persons.

As indicated by Table 40, the SER group did have, as predicted, higher mean scores than did the other occupational groups on the amount of contact with mentally retarded and emotionally disturbed persons. The Duncan's Test indicates that significant differences exist between the SER group and all the other occupational categories on both MR and EDP contact. H-11 is considered confirmed in full.

TABLE 40.--Means, standard deviations, F statistics, and Duncan's Multiple Means Test related to contacts with mentally retarded and emotionally disturbed persons for the four occupational groups.

Variable	Group	N	Mean Score	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
Contacts Mentally Retarded Persons	SER	101	4.38	.99	20.10	88.05	.005	.005
	E	101	2.33	1.40				
	M	85	2.10	1.13				
	L	100	1.84	1.06				
	Total	387	2.69	1.52				
Untested Ranking of Means: SER(4.38)> E(2.33)> M(2.10)> L(1.84)								
Duncan's Test*: R-L, R-M, R-E								
Contacts Emotionally Disturbed Persons	SER	101	2.94	1.44	8.97	16.11	.005	.005
	E	101	2.11	1.31				
	M	85	2.20	1.37				
	L	100	1.59	.98				
	Total	387	2.17	1.37				
Untested Ranking of Means: SER(2.94)> E(2.11)> M(2.02)> L(1.59)								
Duncan's Test*: R-L, R-M, R-E								

*$p < .05$

Differences between the various occupational groups on mean scores on the value subscales

Three of the value subscales were considered in the testing of hypotheses: those of Benevolence, Recognition, and Leadership. Values of support, Conformity, and Independence have yet to be considered. Table 41 summarizes the latter three differences. While statistically significant differences were found on the Support and Independence value scores, these differences were not in the direction which would be consistent with the general theoretical model of this study. No significant differences were noted on Conformity value, although the SER group had the highest mean score on this value, a finding also inconsistent with the theoretical orientation of the study. The SER group was lower on mean scores for the Support value than the E group and had the lowest mean score on the Independence value.

TABLE 41.--Means, standard deviations, F statistics, and Duncan's Multiple Means Test related to three value variables for the four occupational groups.

Variable	Group	N	Mean Score	Standard Deviation	F sex	F group	Sig of F sex	Sig of F group
Support Value	SER	102	17.48	4.61	37.41	7.11	.005	.005
	E	99	18.14	4.43				
	M	87	13.64	5.21				
	L	99	15.63	6.00				
	Total	387	16.31	5.35				
Untested Ranking of Means:			E(18.14)> SER(17.48)> L(15.63)> M(13.64)					
Duncan's Test*:			E-M, E-L, R-M, R-L, L-M					
Conformity Value	SER	102	15.34	6.55	10.10	1.10	.005	.35
	E	99	14.98	6.22				
	M	87	15.08	6.19				
	L	99	13.50	6.68				
	Total	387	14.72	6.44				
Untested Ranking of Means:			SER(15.34)> M(15.08)> E(14.98)> L(13.50)					
Independence Value	SER	102	15.82	6.04	1.19	2.56	.28	.05
	E	99	16.01	6.60				
	M	87	16.73	9.77				
	L	99	18.58	6.78				
	Total	387	16.78	7.40				
Untested Ranking of Means:			L(18.58)> M(16.73)> E(16.01)> SER(15.82)					
Duncan's Test*:			L-R, L-E					

*$p < .05$

H-12: Persons whose primary experience has been at the elementary level will hold more positive attitudes toward physically handicapped and blind persons than will persons whose primary experience has been at other levels of education or those persons with no primary educational experience.

As indicated by Tables 42 and 43, no statistically significant differences were found between educational contact groups on either attitudes-toward-disabled-persons or attitudes-toward-blind-persons scores. While not significant, the ranking of means for both attitudes was in the direction predicted by the hypothesis. H-12 is confirmed directionally but not statistically.

TABLE 42.--Means, standard deviations, and F statistic for attitudes-toward-disabled-persons scores for the primary educational contact groups.

Ed Contact Group	N	Mean Score	Standard Deviation	F	Sig of F
Elementary	158	44.95	4.92	1.14	.33
Secondary	63	45.24	5.05		
University	40	46.60	6.03		
None	89	45.61	5.49		
Total	350	45.36	5.23		

Untested Ranking of Means: U(46.60)> N(45.61)> S(45.24)>E(44.95)

TABLE 43.--Means, standard deviations, and F statistic for attitudes-toward-blind-persons scores for the primary educational contact groups.

Ed Contact Group	N	Mean Score	Standard Deviation	F	Sig of F
Elementary	160	41.09	5.97	.14	.74
Secondary	61	41.77	6.13		
University	40	42.15	5.13		
None	89	41.38	6.69		
Total	350	41.40	6.09		

Untested Ranking of Means: U(42.15)> SEC(41.77)>N(41.38)>E(41.09)

H-13: Persons who have had primary contact with the blind vs other types of physically handicapped individuals will hold more positive attitudes toward the blind.

Table 44 indicates that no statistically significant differences exist between the primary contact groups on attitudes-toward-blind-persons scores. Again, as in the previous hypothesis, while not statistically significant, the ranking of the means was in the direction predicted by the hypothesis. H-13 is therefore confirmed directionally, but not statistically.

TABLE 44.--Means, standard deviations, and F statistic for attitudes-toward-blind-persons scores for primary handicapped persons contact groups.

H.P. Contact Group	N	Mean Score	Standard Deviation	F	Sig of F
Blind Persons	33	39.97	6.08	2.05	.13
Other H. P.	306	41.25	6.11		
No Contact	54	42.66	6.96		
Total	393	41.34	6.25		

Untested Ranking of Means: N(42.66) > O(41.25) > BP(39.97)

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

This chapter is divided into three major sections suggested by the chapter title. Part I will be a summary of the theoretical and methodological issues. Under the latter heading, there will be a summary of hypotheses construction, technical problems, sample, instruments, and analyses procedures.

Part II will be devoted to a discussion of hypotheses testing. Hypotheses 1-6 compare high and low scores of the major variables of the study on the total population. Hypotheses 7-11 compare the SER group with other occupational groups on the major variables. Hypotheses 12-13 deal with the relationship between various types of primary contact and attitudes toward physical disability as a unitary concept versus blindness as a specific disability.

The final portion of the chapter, Part III, will deal with recommendations, the hypotheses, the instruments, the sample, and the analyses procedures.

Part I: Summary of the Theoretical and Methodological Issues

In the introductory chapter, a statement was made to the effect that the main focus of the study would be the assessment of attitudes toward the physically handicapped and education held by certain occupational groups. The relationship between interpersonal values, personal contact, attitudes, and certain demographic variables also were to be a focus of investigation. The assumption was made that both values and contact serve as determinants of attitudes. A last emphasis was to investigate the relative position of the visually handicapped person in contrast to other types of physical handicaps.

Summary of Theory

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

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

The theoretical positions of Cutsforth (1951), Cholden (1958) and Braverman (1950) suggest that blindness is regarded by most persons as the most severe and debilitating physical handicap that an individual can incur. These authors emphasize the deep psychological and psychiatric implications of visual disability. This orientation served as a basis for the generation of hypotheses concerning the blind.

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

With reference to physical disability, Wright, et al., (1960) points out that values can be clustered according to whether they are derived from (a) comparisons or from (b) intrinsic assets. One of the assumptions of the study was that the SER group would view disabled persons from more of an asset value orientation than would other occupational groups. A logical extension of this assumption was that the postulated asset value orientation of the SER group would generalize to favorable progressive-attitudes-toward-education as well as favorable attitudes toward change orientation as measured by the indices of the study.

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

Summary of Hypothesis Construction

Several of the hypotheses were originally constructed by Felty (1965) and Friesen (1966) and utilized in their studies. As a result of their recommendations, attitudes toward education (both progressive and traditional) as well

as attitudes toward toward disabled persons were included. Also due to their suggestions, the change variables (H-6, H-10) were included. H-11 was an extension of the contact variables as applied to frequency of contact with emotionally disturbed and mentally retarded persons.

Rosenberg, Guttman, Foa, and Zetterberg have suggested that frequency of contact is directly related to attitude intensity regardless of content direction. H-1 and H-2 were aimed at testing this assumption.

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

The assumptions of H-6 postulate a relationship between progressive educational attitudes and change orientation, as well as an asset orientation toward others.

H-7 through H-11 were derived from the assumption that persons working in the area of special education and rehabilitation would have more progressive attitudes toward education; be more change oriented; and have more expressed asset oriented values than would other occupational groups. It was also assumed that educational attitudes, whether progressive or traditional, would generalize to other areas.

H-12 was generated from the assumption that persons with primary contact at the elementary level will be predisposed to more child-centered (i.e., asset-minded) orientations with respect to children.

H-13 is an extension of the previous contact hypothesis (H-1 and H-2) with specific reference to the visually handicapped.

Technical Problems

The length of the test battery proved to be the only significant technical problem in the collection of the data. Average respondent time for completion of the battery was approximately one and one-half hours. This problem was particularly evident for the managerial and labor occupational samples. The two education groups were secured primarily in graduate university classroom settings, and, to a certain extent, represented "captive" populations. Once the researcher had obtained the intellectual support of the university instructor, there were few further problems related to the availability of time. There were some minor complaints from these education respondents, who resented the interference with their regular academic programs. Adequate explanation of the purposes and the possible usefulness of the study, generally was quite effective in satisfying their reservations concerning the expenditure of their time and effort.

On the other hand, the managerial and labor occupational groups constituted anything but a "captive" population. Repondents in these occupational classifications had to be scheduled either individually or, more commonly, in small groups. Meetings of community service organizations such as the Lions International, Rotarians, the Optimists, the Kiwanians, the Young Businessmen's Association, the 20-30 Club, etc., provide one of the only opportunities when individuals from the managerial and labor groups naturally come together in reasonable sized groups.

Enlisting the support of these organization's officers was not generally difficult. However, getting the cooperation of the membership frequently proved quite the opposite.

Regularly scheduled meetings of these organizations are usually held in the evening and consist normally of a dinner, a business discussion, an entertainment program, or a guest speaker, who politely limits his offering to no more than thirty minutes. Considerable reticence was evidenced by members upon having a one to two hour test thrust at them unexpectedly by a stranger who felt impelled to make his explanation as brief as possible because of the time factor.

Even when two consecutive meetings were provided by the organization: the first for explanation and discussion of the research study; and the second for the actual

administration of the battery, membership reluctance was far from dispelled. Indeed, experience demonstrated that attendance at the second meeting was invariably well below normal.

Additionally, many individuals who "took" the battery, merely read it through for thirty to forty-five minutes and turned it in either completely unanswered or with so few responses that it could not be utilized for research purposes. In order to secure the final sample of 185 respondents in the M and L groups, it was necessary to "administer" the battery to over 250 subjects.

In many respects, the problem of battery length is not susceptible to remediation. The data requirements plus the theoretical bases of the study dictate battery length. Readers and subsequent researchers in this area should, however, be cognizant of the problems related to the time required to complete the battery.

Instruments

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

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

tudes toward education. A relationship between progressive-attitude-toward-education and positive attitudes toward physical disability was hypothesized.

The hypotheses relating to attitudes-toward-handicapped-persons was instrumented by the Attitude Toward Disability Scale developed by Yuker and associates (1960).

The hypotheses relating to attitudes-toward-blind-persons were instrumented by the Attitudes Toward Blindness Scale developed by Cowen and associates (1958).

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

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

over others, being in a position of leadership and power".

The contact frequency variable was modified by: enjoyment of contact, ease of avoidance of contact, and acceptable alternatives to contact for education, physical disability, and blindness. Change orientation questions and demographic variables were also included in the personal questionnaire.

Sample

The four occupational groups in this Kansas sample consisted of 391 adults including 182 males and 209 females. The groups were represented as follows: The SER group had an N of 105 (22 males and 83 females); the E group had an N of 101 (36 males and 65 females); the M group had an N of 87 (67 males and 20 females); and the L group had an N of 100 (59 males and 41 females). Inspection of the occupational breakdown reveals the sex-linked characteristics of the categories. Note, for example, the preponderence of females in the two education groups and the overwhelming majority of males in the M and L occupational groups.

The interpretive difficulties arising from the differences in the number of male and female respondents as well as the differences in the number of respondents in the occupational groups are dealt with in the following sections of this chapter.

Summary of statistical procedures

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

The UNEQ1 routine (Ruble, Kiel, Rafter, 1966) was used to calculate the one-way analysis of variance statistics. The program was designed to handle unequal frequencies occurring in the various categories. The analysis of covariance routine (Ruble, Paulson, Rafter, 1966) was used to calculate the two-way analyses of variance. This program was likewise designed to handle unequal frequencies occurring in the different categories. In addition to the analysis of variance and covariance tables, the frequency, sum, mean, standard deviation, sum of squares, and the sum of squared deviations of the mean were included for each category. The approximate significance probability of the F statistic was also automatically printed out by the computer.

Zero-order correlations were obtained between all variables. Partial correlations, one of the outputs of the general multiple regression model used in the CDC 3600 program (Ruble, Kiel, Rafter, 1966), were likewise computed. These programs have been written to handle missing data in such a way that correlations are based only on respondents who answered the indicated items. The use of partial correlations was indicated so that the effects of all variables except the predictor could be held constant.

Several multiple regression analyses were also done. Since this specific computer program did not handle missing data, persons having missing data were dropped from the analysis.

Part II: Discussion of Hypotheses

Hypotheses relating to contact frequency and intensity (H-1)

Tables 9-11 indicate that the mean intensity scores on the attitude scales were not significantly different between those who indicated high frequency of contact and those who indicated low frequency of contact with handicapped persons and/or education. Approximately one-fourth of the sample who indicated the most contact with disabled persons and/or education were placed in the high frequency contact group while approximately one-fourth of those who indicated the least amount of contact with these two groups were included in the low frequency contact group. Roughly the middle half of the sample, who indicated an average number of contacts with disabled persons and/or education, were omitted from the analysis. Table 9 indicates that the mean difference of the high and low contact frequency groups were not significantly different. Apparently, intensity was not differentially a function of the number of contacts with either group as far as the attitude instruments were concerned.

On the other hand, Table 12 indicates that significant relationships do exist between ATDP intensity and contact scores for the SER group when viewed correlationally. A negative correlation between ATDP intensity and contact was significant at the .05 level for the SER group. This obtained negative relationship is of particular interest.

Felty (1965) and Friesen (1966) report similar findings with respect to the relationship between contact and intensity scores. Felty's interpretation would appear to be highly relevant here.

> One possible interpretation is that within a setting where people are occupationally involved with handicapped persons there is a tendency for people to become less favorably disposed toward them as they are more frequently involved with them. A possible theoretical support of this point of view is related to Allport's observations regarding the formation of negative attitudes when contact is with persons who are perceived as being inferior....
>
> Another point of view, however, is that the attitude instruments may be measuring only a limited portion of the attitude universe related to handicapped persons. A number of ATDP items would appear to reflect somewhat stereotyped statements about handicapped persons, so that an individual with a direct and prolonged working relationship with handicapped persons might appear less accepting on a "stereotype" level and have more difficulty responding than someone whose relationships were less frequent and perhaps more superficial (Felty, 1965, p. 170).

In conjunction with Felty's statement above, it is the writer's impression, based on administrative and supervisory experience in an institution for severely handicapped children, that professional staff members frequently protect themselves from internalizing the problems of their students by adopting an attitude of cynicism or impersonalism.

It is reasonable to conclude that the respondents indicating high frequency of contact with handicapped persons in Table 9 are from the SER group. Granting this assumption, Felty's (1965) previously reported observations and the writer's personal impressions of workers in the SER group might well be applicable with respect to the contact-intensity findings.

The obtained non-significant relationship between contact and ATDP intensity for the M group is of interest. The managerial group, in view of their leadership capacity in industry, business, military service, etc., would seem to place particular value on health, energy, and general physical capability. At the same time, physical disability would pose severe threats to the maintenance of leadership positions. The author's personal experience in working with adult stroke and subsequently aphasic individuals substantiates this contention. Those stroke victims who had held professional positions of leadership and responsibility prior to their CVA's were least able to accept their handicap and their new roles in life.

Tables 10 and 11 indicate there were no significant differences on mean intensity scores on both progressive and traditional attitudes toward education when compared with high and low frequency of contact.

Table 12, however, indicates there were significant relationships between contact and intensity when viewed

correlationally for the SER and E groups. Table 12 reveals that significant positive correlations were found between contact and intensity for both progressive and traditional attitudes toward education. These correlations were significant at the .05 level for both the SER and E occupational groups.

The fact that the SER and E groups have significant positive correlations between contact and intensity on both progressive and traditional educational attitudes may have several possible explanations. One explanation, for example, might be that the SER and E occupational groups may have verbalized democratic progressive educational ideals, and yet, at the same time, held to a basic traditional orientation without being aware of the existing discrepancy. It may also be that persons holding strong progressive educational attitudes and those holding strong traditional educational attitudes are similarly represented in the sample.

Friesen's (1966) observations may also be valid with respect to the above findings.

> It may also be that the significant correlation between contact and intensity on the attitude scales is simply a function of a reasonably large N. Legitimate questions can be raised to the appropriateness of the statistic used. Future studies should attempt to explore, for example, whether this kind of relationship is linear or curvilinear and better analyzed by some other statistical method. (Friesen, 1966, p. 226).

Contact variables and their relationship to favorable attitudes (H-2)

Table 13 indicates a significant correlational relationship between the combined contact variables and favorable attitudes toward handicapped persons and blind persons.

Table 14 reveals that for attitudes toward handicapped persons, enjoyment of contact, when partialled out, contributes most to the significant mutiple correlation. It was also noted that ease of avoidance and the availability of alternatives contribute significantly to the correlation. Table 14 likewise indicates that for attitude toward blind persons, enjoyment of the contact contributes most to the multiple correlation. Alternatives to contact also contributed significantly to the obtained relationship.

Table 13 indicates that the multiple correlations between both progressive and traditional educational attitudes and the combined contact variables were not statistically significant. While not significant, Table 14 suggests that the availability of alternative action contributes differentially most to the multiple correlations for both educational attitudes.

Value variables in relation to attitudes (H-3 to H-5)

Examination of Tables 15 through 26 indicates that with the exception of Benevolence value scores and ATDP scores, none of the relationships between value orientations and attitudes toward handicapped persons, blind persons, or progressive and traditional educational attitudes were significant. Many of the obtained relationships were also directionally contrary to the hypotheses. These findings were, in general, similar to both Felty (1965) and Friesen (1966) who likewise obtained few significant results with respect to the relationships between value orientation and attitudes in their cross-national research studies.

Friesen (1966) raises the question of the reliability and validity of the instruments in settings where concept equivalence is questionable. His reference here pertains to the use of the instruments in a different cultural environment than the one in which they were developed. The essentially negative results in the present study, however, raises the additional question of the general reliability and validity of the instruments irrespective of the cultural setting. Another interpretation is the conclusion that attitudes toward disabled persons, blind persons, and progressive-traditional educational attitudes are not necessarily instrumental to the maintenance of certain specified interpersonal values.

Table 27 indicates that, as hypothesized, the relationship between value orientation and attitudes toward handicapped persons, blind persons, and progressive and traditional educational attitudes was significant in all cases with respect to the sex of the respondent. Recognizing the sex-linked characteristics of the occupational categories and the unequal distribution of males and females in the sample, one might speculate that differences obtained on attitude scores may be more related to the sex of the respondent than to a particular value orientation.

Attitude scores as related to change variables (H-6)

As seen from Table 28, the multiple correlation between the change variables and attitudes toward handicapped persons, blind persons, and progressive-traditional educational attitudes was statistically significant in each case. Table 29 reveals that the change variables referring to automation and self change, when partialled out, made a significant negative contribution to the multiple correlation with attitudes toward disabled persons. It might be posited that automation is in the direction of impersonalized relationships and, as such, is inconsistent with the felt needs of people expressing positive attitudes toward handicapped persons. The personal experience of the writer has demonstrated that persons expressing a desire to work with the handicapped are generally individuals with a high need for personal contact.

Table 29 likewise indicates that the change variable of automation, when partialled out, contributes significantly in a negative direction to the multiple correlation with attitudes toward blind persons. The discussion of the automation variable above with respect to ATDP scores would also be applicable here.

With regard to traditional educational attitudes, Table 29 indicates that the change variable related to birth control practices made a significant positive contribution to the mutiple correlation. This positive finding is in the predicted direction. While not significant, all of the other change variables are negatively correlated to traditional attitudes toward education as would be predicted by the hypothesis. It would appear that this particular change variable has definite religious affiliation implications. Opinions of respondents concerning birth control practices may then reflect the felt importance of or the need to adhere to religion rather than constitute a criterion along a progressive-traditional dimension.

Table 29 also reveals that the change orientation variables relating to health and child rearing practices made a significant positive contribution to the multiple correlation with respect to progressive educational attitudes. This finding is in the hypothesized direction and is consistent with the theoretical orientation of the study. Persons whose attitudes toward education are progressive

would be expected to be receptive to discoveries leading to improved health measures and willing to attempt new techniques with respect to raising children.

Hypotheses related to characteristics of persons working directly with disabled persons (H-7 to H-11)

Table 32 reveals that the hypothesis concerning the SER group with reference to scores on the handicapped persons scale could not be confirmed. While the differences between the occupational groups were not statistically significant, ranking of mean scores was in the predicted direction. Sex differences, however, were significant at the .01 level.

Table 33 indicates that while statistically significant differences exist between the occupational categories with respect to scores on the attitude-toward-blind-persons scale, these differences were not in the predicted direction. The E group obtained the lowest mean score rather than the SER group as hypothesized. The Duncan's analysis, however, reveals that no significant differences exist between these two groups. Differences between the SER and E groups will be discussed in a subsequent section. Sex differences on attitudes-toward-blind-persons were significant at the .005 level.

With regard to the value scales and the SER group, Tables 34 through 36 indicate that significant group differences were found only for the Leadership value. While

not statistically significant, mean rankings for both Benevolence and Recognition values were in the hypothesized direction. Sex differences for Benevolence value were significant at the .005 level.

Table 36 indicates that group differences for Leadership value were statistically significant. The Duncan's analysis reveals that although significant differences exist between the SER and the M and L groups, no significant differences were found between the SER and E groups. Sex differences for Leadership value were significant at the .005 level.

As indicated by Tables 37 and 38, significant group differences were found for both progressive and traditional attitudes toward education. These differences were in the direction predicted by the hypotheses. Results of the Duncan's analysis reveal that significant differences exist between the SER group and the M and L groups, but that no differences exist between the SER and E groups. Sex differences on both education variables were statistically significant

Results of the zero-order correlations between attitudes and values for the occupational categories found in Tables 30 and 31 are not clear-cut. The correlations, however, are generally in the direction consistent with hypotheses. These results are summarized on pages 116-117.

With respect to the change variables, Table 39 indicates that significant differences between the occupational groups were found only on the variable related to health practices. The ranking of the means was in the predicted direction, however, the Duncan's analysis reveals that the SER and E groups were not significantly different from one another. The only other variable on which the ranking of the means was in the hypothesized direction was on the variable related to child rearing practices.

Table 40 indicates that significant differences, with respect to the amount of contact with mentally retarded and emotionally disturbed persons, exist between the occupational categories. The Duncan's analysis reveals that the scores of the SER group are significantly different from all other occupational groups. The results so clearly support the hypothesis that little further interpretation appears necessary.

Hypotheses relating to primary educational and HP contact (H-12, H-13)

As indicated by Tables 42 and 43, the hypothesis concerning primary educational contact group and attitudes toward handicapped persons and blind persons could not be confirmed. Differences between groups on both attitude variables were statistically non-significant. In both instances, however, the ranking of means fell in the

direction predicted by the hypothesis. While directional confirmation, in contrast to statistical, is not acceptable for research purposes, the results strongly suggest that the hypothesized group differences might be extractable with more sensitive instrumentation. In both instances, the elementary and secondary groups ranked one and two on the attitude variables.

Table 44 indicates that the hypothesized relationship between the primary handicapped persons contact group and attitudes toward the blind was not confirmed. Again, the hypothesis was confirmed directionally but not statistically in that mean ranking was in the predicted direction.

It is interesting to note that all the hypotheses regarding the SER group and primary handicapped persons group with respect to attitudes-toward-blind-persons and attitudes-toward-handicapped-persons were not confirmed statistically. At least one possible explanation for these findings appears plausible. Examination of the ATDP and ATBP scales reveals that scale items refer generally to a rather simplistic acceptance-rejection dimension. Items such as ATDP #2 are a good example: "Physically handicapped persons are just as intelligent as non-handicapped ones." A "strongly agree" response would indicate simple positive attitude. The person working in SER, however, would be aware from his academic preparation, that mental retardation and physical handicaps

frequently occur concurrently. The SER respondent might then answer, "disagree". Can we say that, for this question, his attitudinal position is less positive? Certainly the respondent is operating on the basis of greater understanding and knowledge, i.e., his response to a supposedly simple item is highly complex.

A similar analysis can be made with respect to certain items on the ATBP scale. Item #17 referring to personality development in the blind is a good example. Again, a simplistic positive analysis would result in a "strongly agree" response. The individual who has trained and worked in the area of blindness, however, is well aware that personality development is inevitably affected by the presence of the visual handicap. Cutsforth (1950) in effect, says that while it is theoretically possible for the blind individual to demonstrate entirely wholesome personality development, such a person is rarely, if ever, encountered in a clinical situation. Cholden (1958) emphasizes the psychiatric implications of blindness and describes at length the personality problems encountered in adventitiously blinded individuals. Would the SER worker, who responded on the basis of these understandings, be expressing a less positive attitude toward the blind or has the scale item not sufficiently discriminated his response? The writer of the present research feels that the latter possibility is more likely.

Part III: Recommendations

Recommendations relating to sampling

As was indicated earlier in the present chapter, little difference was found between the scores of the SER group and the E group on the majority of variables tested. This finding is similar to Friesen's (1966) results. In a number of important respects, it may not be justified to assume that the SER and E samples constitute separate and discrete groups, at least in the United States.

In the present study, the majority of the SER group were special education classroom teachers rather than vocational rehabilitation counselors, and, as such, they share reciprocally many common goals and experiences with the E group. Teacher training programs in the United States contain many common academic and clinical experiences for regular and special education teachers. Most programs require, for example, that prospective special educators must also take the academic coursework leading to regular education certification. In addition, more and more teacher training programs are requiring that all teachers include in their academic programs at least the introductory survey of special education, thereby providing common basic understandings between the SER and E groups.

Still another consideration is the fact that many, if not most, teachers in special education are "retreads" or teachers who have switched to special classes from

regular classes. Many of the teachers included in the present study under the SER classification were at one time, teachers in regular classes. Since they had taken the required academic training and had been certified as special class teachers they legitimately qualified for inclusion in the SER sample. This type of dual background, however, does "muddy the water" to an extent and makes interpretation of the research results somewhat tenuous.

A last factor affecting background experience, although not strictly limited to the SER and E groups, is the considerable national emphasis which special education and rehabilitation have received in the United States in recent years. Several recent presidents have given their support to such programs and the amount of favorable legislation at all levels of government has been considerable. A great deal of energy has been devoted to articulating this concern for the handicapped through the mass media. Television, for example, has been used extensively to improve the employment position of the handicapped worker. Labor unions and managerial personnel in industry are presently demonstrating increasing interest in the handicapped. The general dissemination of information has provided many common understandings for all occupational groups in the United States.

A number of additional factors may be cited as limiting the representative nature of the present sample. First,

majority of respondents in the M and L groups were active
›ers of various local service organizations. It is con-
vable that persons feeling the need to participate in
munity activity may view the physically handicapped and
ıcation differently than persons without the felt need
r civic participation. Second, the city of Wichita,
some respects, may be unique with respect to its contact
.th handicapped individuals. For over thirty years the
nstitute of Logopedics, located in Wichita, has provided
ervices for many thousands of severely physically handi-
:apped children and adults. This prolonged exposure may
well have affected attitudes toward the handicapped held by
persons living in the community. Third, the SER group
constitutes a rather heterogenous array of professional
endeavors. Specifically, this group included special
education teachers, rehabilitation workers, physicians,
nurses, physical therapists, occupational therapists and
speech therapists. This diversity of training and pro-
fessional interest may have had certain uncontrolled effects
on the SER group scores.

One last possible limitation involves the uniformity of the respondents understanding of the terms referring to physical handicaps. While each respondent was required to read a glossary containing definitions of blindness, partial sightedness and physical handicap, it is quite possible that

respondents interpreted these conditions on the basis of their previous experience and perceptions.

In order to avoid this type of group overlap, it is recommended that subsequent studies, at least within the United States, limit the SER sample to individuals whose training and experience has been specifically in special education and rehabilitation rather than including persons with mixed backgrounds. This would insure, at least, more accurate interpretation of research results.

Recommendations relating to analysis procedures

Future studies might profit from investigation of the linear vs curvilinear nature of the hypothesized correlational relationships. Utilizing contingency tables, chi square, and plotting procedures for graphically illustrating actual data curves are additional analysis methods which might prove helpful.

The recommendations of both Felty (1965) and Friesen (1966) concerning the use of factor analysis should likewise be explored. The use of "factor-score" or "factor-measurement" products could prove helpful in the multiple regression analysis by reducing the large number of predictor variables to more manageable and workable size.

Concluding Summary

This section will be directed to a discussion of two major aspects of the study: (a) review of the sex-linked composition of the occupational groups, and (b) the relationship between theory and the findings of the present study.

Sex and occupational group interaction

Table 27 compares the total sample differences between males and females on Benevolence value and the attitude scales. As indicated by Table 27, females had significantly higher Benevolence value scores than did their male counterparts. These differences were significant at the .005 level.

Table 27 also indicates that the female sample scored significantly lower on the ATDP scale than males indicating more positive attitudes toward handicapped persons. A similar significant difference suggesting more positive attitudes toward blind persons was also found for the total female sample. This difference was significant at the .005 level. Lastly, as hypothesized, the female sample demonstrated significantly more progressive attitudes toward education than did the male sample. This difference was significant at the .05 level.

Tables 32 through 39 relate to differences between the occupational groups on the value and attitude variables.

Significant differences, controlled for sex by the analysis of covariance routine, were found for the following variables: attitude-toward-disabled-persons, attitude-toward-blind-persons, Benevolence, Leadership, progressive educational attitudes, and birth control.

Relationship between theory and results

As evidenced by Table 13, there was a significant relationship correlationally between contact and handicapped persons as well as blind persons scores. When partialled out, alternative rewarding opportunities to contact with handicapped and blind persons, contributed significantly. Zetterberg (1963, p. 13) has indicated that the volitional nature of contact is crucial. In other words, although respondents had alternative action possibilities, they chose to interact with handicapped and blind persons. While not statistically significant, alternative rewarding opportunities also contributed most to the multiple correlations for both progressive and traditional attitudes toward education.

The findings in Tables 28 and 29 indicate that the relationship between the change variables and ATDP, ATBP, and progressive-traditional educational attitudes were all significant. These results lend validity to Felty's (1965) contention concerning the relationship of these variables to attitudes.

Tables 32 through 39 indicate that group membership may be an important factor with respect to certain attitudes and value variables. This finding is in keeping with the theoretical position of Kerlinger (1958) which posits a relationship between attitudes and group membership. Specifically, the SER group tended to have higher asset value orientation than other occupational groups. This finding is also consistent with Jordan's (1964) theoretical position.

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APPENDICES

APPENDIX A

Statistical Material

1. Means, Standard Deviations, and Number of Respondents for 70 Variables for the Total Sample, Males and Females by occupational group

TABLE 45.--Means, standard deviations and number of respondents for 70 variables by total, male, and female respondents for the SER occupational group

Variable	SER - total			SER - male			SER - female		
	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
1. Sex	1.79	.41	105	1.00	.00	22	2.00	.00	83
2. Support	17.48	4.61	102	16.50	4.91	22	17.75	4.51	80
3. Conformity	15.34	6.55	102	11.68	7.23	22	16.35	6.01	80
4. Recognition	10.33	3.92	102	10.91	4.57	22	10.17	3.74	80
5. Independence	15.82	6.04	102	17.14	5.44	22	15.46	6.18	80
6. Benevolence	20.13	5.32	102	18.18	6.53	22	20.66	4.85	80
7. Leadership	10.08	6.42	102	14.27	6.41	22	8.92	5.96	80
8. Var of Ed ct	10.88	1.76	105	10.81	1.89	22	11.26	3.93	83
9. Amt of Ed ct	5.76	1.80	103	4.59	1.47	22	5.70	1.84	81
10. Gain from Ed	4.42	1.16	103	4.32	.43	22	4.43	1.12	81
11. Ed enjoyment	3.87	.36	103	3.77	1.32	22	3.90	.34	81
12. Ed alternative	3.70	1.42	103	3.54	1.47	22	3.75	1.41	80
13. Age	36.50	11.99	105	30.23	5.90	22	38.19	12.60	83
14. Youth comm.	2.84	.50	105	2.86	.35	22	2.83	.54	83
15. Residence comm	2.87	.60	105	2.95	.37	22	2.85	.65	83
16. Children	1.75	1.71	105	1.73	1.42	22	2.12	3.96	83
17. Income	9.25	3.94	103	9.19	3.14	22	9.67	5.64	82
18. Siblings	2.55	2.37	105	2.04	1.89	22	3.05	4.23	83
19. Import of Rel	3.44	.71	105	3.00	.92	21	3.55	.59	83
20. Personalism amt	4.54	1.68	103	7.63	.66	22	4.45	1.73	82

TABLE 45.--(cont.)

21.	Personal imp	2.70	.75	103	4.27	.63	22	2.66	.79	82
22.	Ed Self amt	6.84	.91	105	2.82	.96	22	6.67	.94	83
23.	Ed Self comp	3.90	.63	105	3.32	1.13	22	3.77	.67	83
24.	Ed Father comp	3.04	1.02	105	3.32	1.13	22	3.17	1.22	83
25.	Satis El Ed	3.79	.97	105	3.33	1.12	22	3.88	.94	83
26.	Satis Sec Ed	3.64	1.00	104	3.38	1.29	22	3.75	.94	81
27.	Satis Univ	3.95	.98	103	3.14	1.04	22	3.71	.94	80
28.	Satis Business	3.44	.91	104	3.41	.85	22	3.43	.92	81
29.	Satis Labor	2.99	.86	103	2.82	.96	22	3.02	.83	80
30.	Satis Loc Gov	2.57	1.08	103	2.37	1.29	22	2.61	1.01	80
31.	Satis Nat Gov	2.91	1.08	103	3.04	1.13	22	2.86	1.08	80
32.	Satis Health S	3.52	.99	103	3.41	1.01	22	3.55	.99	80
33.	Satis Churches	3.15	1.27	105	2.82	1.30	22	3.25	1.25	82
34.	Res Length	3.38	1.51	105	3.00	1.45	22	3.51	1.50	82
35.	Res Change	2.40	1.11	105	2.91	.92	22	2.26	1.12	83
36.	Job Change	2.33	1.16	105	2.45	.86	22	2.29	1.22	83
37.	Rel Adh	4.20	.83	104	3.54	1.01	22	4.38	.68	82
38.	Change Health	3.62	.74	105	3.68	.78	22	3.60	.73	83
39.	Ch Child R	2.98	.77	105	3.04	.84	22	2.96	.76	83
40.	Ch Birth C	1.63	.67	105	1.32	.65	22	1.71	.65	83
41.	Ch Automat	3.23	.72	105	3.36	.79	22	3.19	.70	83
42.	Ch Pol Lead	2.62	1.01	105	2.72	1.08	22	2.59	1.00	83
43.	Local Ed	3.10	.83	105	3.18	.79	22	3.08	.64	83
44.	Federal Ed	2.81	.92	105	3.18	.85	22	2.71	.91	83
45.	Ed Planning	1.98	.55	105	2.04	.57	22	1.96	.55	83
46.	Self Change	2.78	.60	105	2.73	.45	22	2.79	.64	83

TABLE 45.--(cont.)

47.	Change Rule	2.85	.69	105	2.91	.61	22	2.83	.71	83
48.	Ch Rtn Job	2.88	.85	105	3.23	.75	22	2.78	.86	83
49.	Personal-Fam	3.74	.48	105	3.60	.59	22	3.78	.44	83
50.	Personal-Oth	3.05	.77	104	3.04	.65	22	3.05	.80	83
51.	Planning	3.60	.63	104	3.54	.74	22	3.60	.60	82
52.	Happiness	6.56	3.50	102	5.90	3.47	22	6.74	3.51	80
53.	HP Prim Cnct	6.72	1.83	102	6.57	2.13	21	6.76	1.88	81
54.	HP Var Cnct	8.87	2.34	103	8.33	2.78	21	9.81	2.20	82
55.	HP Amt Cnct	4.38	1.05	103	4.52	.81	21	4.34	1.10	82
56.	HP Avoid	2.47	1.35	102	2.24	1.33	21	2.53	1.36	81
57.	HP Gain	2.69	1.15	102	3.19	1.07	21	2.55	1.14	81
58.	HP Income	3.87	1.42	87	4.15	1.35	20	3.79	1.44	67
59.	HP Enjoyment	3.83	.42	101	3.71	.46	21	3.86	.41	80
60.	HP Alternative	3.88	1.39	93	3.90	1.04	21	3.87	1.48	72
61.	MR Amount	4.38	.98	101	4.59	.80	22	4.32	1.02	79
62.	EDP Amount	2.94	1.44	101	3.14	1.49	22	2.89	1.43	79
63.	HP Content	44.49	4.60	104	43.18	5.28	22	44.84	4.37	82
64.	HP Intensity	60.35	7.77	104	61.36	7.88	22	60.08	7.76	82
65.	Ed Trad Content	26.51	2.73	105	25.86	2.14	22	26.68	2.85	83
66.	Ed Trad Intens	30.57	3.81	105	29.77	4.43	22	30.78	3.63	83
67.	Ed Prog Content	31.17	3.18	104	32.27	3.18	22	30.87	3.14	82
68.	Ed Prog Intens	32.86	3.15	104	32.63	4.04	22	32.92	2.89	82
69.	BP Content	40.17	5.66	104	38.59	7.04	22	40.59	5.21	82
70.	BP Intensity	53.72	5.60	104	54.04	6.13	22	53.63	5.59	82

TABLE 46.--Means, standard deviations and number of respondents for 70 variables by total, male, and female respondents for the E occupational group.

Variable	E - total			E - male			E - female		
	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
1. Sex	1.64	.48	101	1.00	.00	36	2.00	.00	65
2. Support	18.14	4.43	99	17.06	4.10	35	18.73	4.52	64
3. Conformity	14.98	6.22	99	13.43	6.57	35	15.83	5.90	64
4. Recognition	10.49	4.46	99	10.11	4.58	35	10.70	4.41	64
5. Independence	16.01	6.60	99	17.48	8.21	35	15.20	5.43	64
6. Benevolence	19.26	6.56	99	18.60	6.05	35	19.62	6.84	64
7. Leadership	10.27	6.46	99	12.94	7.23	35	8.81	5.53	64
8. Var of Ed Ct	10.63	1.81	101	10.47	1.92	35	10.72	1.76	64
9. Amt of Ed Ct	6.07	1.66	100	6.03	1.42	35	6.09	1.78	65
10. Gain from Ed	4.56	1.03	100	4.86	.69	35	4.40	1.14	65
11. Ed enjoyment	3.87	.37	99	3.88	.33	34	3.86	.39	65
12. Ed alternative	3.31	1.35	96	3.85	1.10	34	3.01	1.40	62
13. Age	37.64	11.82	100	36.72	11.65	36	38.16	11.98	64
14. Youth community	2.83	.51	101	2.83	.51	36	2.83	.52	65
15. Residence comm	1.33	1.26	101	2.86	.59	36	2.83	.57	65
16. Children	2.84	.57	101	1.42	1.32	36	1.28	1.24	65
17. Income	9.82	4.06	101	8.58	3.47	36	10.51	4.22	65
18. Siblings	3.18	2.45	101	3.14	2.51	36	3.20	2.43	65
19. Import of Rel	3.23	.82	101	3.14	.88	36	3.45	.73	65
20. Personalism Amt	4.66	1.57	99	4.48	1.44	35	4.76	1.64	64
21. Personalism Imp	2.86	.82	99	2.68	.79	36	2.97	.83	64
22. Ed Self Amt	6.86	.60	101	6.97	.69	36	6.80	.54	64
23. Ed Self Comp	3.81	.48	101	3.83	.51	36	3.80	.47	65

TABLE 46.--(cont.)

24.	Ed Father Comp	2.93	.80	101	3.05	.83	36	2.86	.78	65
25.	Satis El Ed	4.00	.96	101	4.03	.88	36	4.15	.78	65
26.	Satis Sec Ed	3.71	1.01	101	3.47	1.13	36	3.98	1.01	65
27.	Satis Univ	3.65	1.02	99	3.43	1.19	35	3.85	.92	65
28.	Satis Business	3.35	1.03	101	3.27	1.00	36	3.76	.90	65
29.	Satis Labor	2.90	1.05	101	2.80	1.19	36	3.38	1.06	65
30.	Satis Loc Gov	2.69	1.14	101	2.75	1.20	36	2.66	1.11	65
31.	Satis Nat Gov	3.09	1.06	101	3.16	1.03	36	3.06	1.09	65
32.	Satis Health S	3.48	1.18	101	3.19	1.30	36	3.65	1.09	65
33.	Satis Churches	3.15	1.13	101	3.11	1.11	36	3.18	1.16	65
34.	Res length	3.73	1.30	101	3.50	1.31	36	3.86	1.34	65
35.	Res Change	2.07	1.03	101	2.30	1.01	36	1.95	1.04	65
36.	Job Change	10.41	1.08	101	10.77	1.59	36	10.21	.60	65
37.	Rel Adh	4.14	.84	101	3.88	.82	36	4.28	.82	65
38.	Change Health	3.58	.78	101	3.53	.84	36	3.61	.74	65
39.	Ch Child R	2.98	.77	101	2.92	.73	36	3.01	.80	65
40.	Ch Birth C	1.60	.67	100	1.55	.65	36	1.62	.68	64
41.	Ch Automat	3.38	.71	101	3.36	.76	36	3.40	.68	65
42.	Ch Pol Lead	2.40	.99	101	2.36	1.01	36	2.43	.99	65
43.	Local Ed	2.90	1.03	100	2.94	.90	36	2.87	1.05	64
44.	Federal Ed	3.02	.87	100	3.11	.99	36	2.97	.86	65
45.	Ed Planning	2.04	.55	99	1.97	.57	36	2.08	.54	64
46.	Self Change	2.44	.67	100	2.19	.67	36	2.57	.64	64
47.	Change Rule	2.72	.83	101	2.92	.73	36	2.61	.86	65
48.	Ch Rtn Job	2.88	.75	101	2.88	.78	36	2.87	.74	65
49.	Personal-Fam	3.64	.59	101	3.42	.77	36	3.77	.42	65
50.	Personal-Oth	3.07	.81	100	2.91	.85	35	3.15	.77	65
51.	Planning	3.58	.68	100	3.48	.88	35	3.63	.55	65
52.	Happiness	7.32	3.31	98	7.11	3.41	35	7.44	3.28	63

TABLE 46.--(cont.)

53.	HP Prim Cnct	5.59	2.34	91	5.68	2.53	31	5.55	2.26	60
54.	HP Var Cnct	8.03	2.91	92	7.87	3.19	32	8.11	2.78	60
55.	HP Amt Cnct	3.48	1.37	92	3.69	1.25	32	3.36	1.42	60
56.	HP Avoid	2.49	1.25	92	2.37	1.24	32	2.55	1.27	60
57.	HP Gain	1.41	.77	92	1.34	.54	32	1.45	.87	60
58.	HP Income	1.83	1.47	92	2.30	1.77	10	1.46	1.12	13
59.	HP Enjoyment	3.18	.72	92	3.31	.69	32	3.11	.74	65
60.	HP Alternative	3.09	1.69	34	3.12	1.59	16	3.05	1.83	65
61.	MR Amount	2.33	1.40	101	2.27	1.36	36	2.35	1.43	65
62.	EDP Amount	2.11	1.31	101	2.08	1.36	36	2.12	1.29	65
63.	HP Content	45.73	5.01	100	46.00	3.82	36	45.58	5.59	64
64.	HP Intensity	59.48	6.64	100	57.75	6.57	36	60.45	6.53	64
65.	Ed Trad Content	26.94	3.79	101	26.30	3.65	36	27.29	3.85	65
66.	Ed Trad Intens	32.54	3.52	100	32.22	3.11	36	32.72	3.74	64
67.	Ed Prog Content	31.15	2.98	101	30.22	3.30	36	31.66	2.72	65
68.	Ed Prog Intens	33.17	3.29	101	32.33	3.24	36	33.63	3.22	65
69.	BP Content	39.99	4.50	99	41.53	4.49	34	39.18	4.32	65
70.	BP Intensity	54.10	4.05	99	53.32	4.89	34	54.51	3.52	65

TABLE 47.--Means, standard deviations and number of respondents for 70 variables by total, male, and female respondents for the M occupational group.

Variable	M - total			M - male			M - female		
	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
1. Sex	1.23	.43	85	1.00	.00	65	2.00	.00	20
2. Support	13.64	5.21	87	12.88	4.97	65	16.40	5.29	20
3. Conformity	15.08	6.19	87	14.86	5.94	65	15.25	7.05	20
4. Recognition	10.83	4.85	87	10.98	4.53	65	10.60	4.58	20
5. Independence	16.73	9.77	87	16.25	7.31	65	18.85	15.60	20
6. Benevolence	17.66	6.96	87	17.29	7.14	65	18.35	6.55	20
7. Leadership	16.38	7.37	87	17.35	6.96	65	13.25	8.26	20
8. Var Ed Cnct	7.73	4.83	87	7.61	4.87	65	8.05	5.03	20
9. Amt Ed Cnct	3.93	2.08	31	3.78	2.21	23	4.37	1.68	8
10. Gain from Ed	2.74	1.85	27	2.75	1.80	20	2.71	2.14	7
11. Ed Enjoyment	3.53	.64	28	3.45	.69	20	3.75	.46	8
12. Ed Alternative	3.37	1.67	27	3.30	1.66	20	3.57	1.81	7
13. Age	37.37	10.99	87	38.37	10.47	65	33.65	11.92	20
14. Youth Comm	2.95	.37	87	2.94	.43	65	3.00	.00	20
15. Residence Comm	3.05	.56	87	3.01	.60	65	3.20	.41	20
16. Children	1.42	1.37	87	1.81	1.34	65	.25	.55	20
17. Income	11.69	4.43	85	12.28	4.76	64	9.74	2.51	19
18. Siblings	2.44	1.90	87	3.41	1.93	65	2.50	1.93	20
19. Import of Rel	2.91	.86	87	2.85	.81	65	3.00	.97	20
20. Personal Amt	4.14	1.51	87	4.08	1.54	65	4.20	1.44	20
21. Personal Imp	2.42	.87	87	2.34	1.01	65	2.60	.94	20
22. Ed Self Diff	5.78	.97	87	5.86	.83	65	5.55	.82	20
23. Ed Self Comp	3.70	.57	87	3.75	.53	65	3.60	.68	20

TABLE 47.--(cont.)

24.	Ed Father Comp	3.08	.83	87	3.00	.77	65	3.45	.89	20
25.	Satis El Ed	3.49	.91	87	3.51	.92	65	3.40	.94	20
26.	Satis Sec Ed	3.26	1.04	87	3.26	1.08	65	3.20	.95	20
27.	Satis Univ	3.46	1.02	87	3.41	.96	65	3.75	1.07	20
28.	Satis Business	3.17	1.05	87	3.25	1.00	65	3.05	1.14	20
29.	Satis Labor	2.73	1.08	87	2.72	1.08	65	2.70	1.13	20
30.	Satis Loc Gov	2.56	.98	87	2.61	.96	65	2.40	.99	20
31.	Satis Nat Gov	2.54	1.11	87	2.54	1.15	65	2.55	1.05	20
32.	Satis Health S	3.56	.97	87	3.54	.97	65	3.65	.93	20
33.	Satis Churches	3.15	1.02	87	3.15	1.00	65	3.20	1.10	20
34.	Res Length	4.00	1.19	87	3.94	1.18	65	4.10	1.25	20
35.	Res Change	1.99	1.07	87	2.01	1.10	65	1.90	1.02	20
36.	Job Change	37.09	7.48	87	38.65	6.73	65	31.60	7.62	20
37.	Rel Adh	3.57	1.03	87	3.51	.90	65	3.80	1.15	20
38.	Change Health	3.27	.88	87	3.29	.79	65	3.20	.89	20
39.	Ch Child R	2.86	.82	87	2.86	1.00	65	2.80	.95	20
40.	Ch Birth C	1.64	.68	87	1.57	.64	65	1.90	.79	20
41.	Ch Automat	3.21	.82	87	3.15	.87	65	3.40	.60	20
42.	Ch Pol Lead	2.73	1.14	87	2.66	1.16	65	2.95	1.10	20
43.	Local Ed	2.88	.91	87	2.89	.90	65	2.95	1.09	20
44.	Federal Ed	2.27	1.07	87	2.29	1.07	65	2.35	.98	20
45.	Ed Planning	1.92	.55	87	1.94	.55	65	1.85	.59	20
46.	Self Change	2.49	.66	87	2.45	.68	65	2.65	.59	20
47.	Change Rule	2.85	.66	87	2.85	.64	65	2.85	.74	20
48.	Ch Rtn Job	3.21	.76	87	3.21	.76	65	3.15	.81	20
49.	Personal Fam	3.55	.58	87	3.49	.59	65	3.70	.57	20
50.	Personal Oth	2.93	.77	87	2.86	.74	65	3.10	.85	20

TABLE 47.--(Cont.)

51.	Planning	3.52	.68	87	3.49	.69	65	3.65	.58	20
52.	Happiness	6.53	3.47	84	6.73	3.51	63	5.68	3.38	19
53.	HP Prim Cnct	5.29	1.89	69	5.32	1.71	50	5.19	2.43	17
54.	HP Var Cnct	8.54	2.51	70	8.76	1.97	50	8.55	3.18	18
55.	HP Amt Cnct	3.80	1.02	69	3.80	1.04	49	3.77	1.06	18
56.	HP Avoid	2.64	1.20	70	2.52	1.20	50	2.88	1.23	18
57.	HP Gain	1.22	.56	69	1.19	.56	49	1.27	.57	18
58.	HP Income	2.00	1.32	9	2.60	1.52	5	1.33	.58	3
59.	HP Enjoyment	3.06	.78	69	2.90	.79	50	3.47	.62	17
60.	HP Alternative	3.28	1.64	14	3.33	1.66	9	2.75	1.71	4
61.	MR Amount	2.10	1.13	85	2.08	1.13	64	2.21	1.23	19
62.	EDP Amount	2.02	1.37	85	1.81	1.26	64	2.79	1.55	19
63.	HP Content	45.79	5.18	87	45.92	4.64	65	44.90	6.76	20
64.	HP Intensity	59.55	8.06	87	59.05	8.40	65	60.10	6.43	20
65.	Ed Trad Con	28.80	3.01	87	28.75	2.91	65	28.75	3.42	20
66.	Ed Trad Intens	32.11	3.37	87	31.90	3.29	65	32.15	3.23	20
67.	Ed Prog Con	29.52	3.69	87	29.58	3.84	65	29.25	3.83	20
68.	Ed Prog Intens	32.24	4.13	87	32.03	4.21	65	32.60	4.02	20
69.	BP Content	43.47	6.55	85	43.64	6.11	65	42.58	8.22	19
70.	BP Intensity	58.15	8.81	65	57.25	9.18	64	61.47	7.07	19

TABLE 48.--Means, standard deviations, and number of respondents for 70 variables by total, male, and female respondents for the L group.

Variable	L - Total			L - male			L - female		
	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
1. Sex	1.41	.49	100	1.00	.00	59	2.00	.00	41
2. Support	15.62	6.00	99	14.45	6.39	58	17.29	5.03	41
3. Conformity	13.50	6.68	99	13.27	6.37	58	13.83	7.15	41
4. Recognition	11.04	5.12	99	11.38	5.00	58	10.56	5.30	41
5. Independence	18.58	6.78	99	18.27	6.96	58	19.02	6.57	41
6. Benevolence	17.39	6.32	99	15.90	6.36	58	19.51	5.70	41
7. Leadership	13.88	8.75	99	16.88	9.09	58	9.66	6.21	41
8. Var Ed Cnct	8.60	4.27	100	7.78	4.48	59	9.78	3.67	41
9. Amt Ed Cnct	3.12	1.90	50	2.84	2.07	25	3.40	1.71	25
10. Gain from Ed	2.07	1.62	40	1.67	1.41	18	2.41	1.74	22
11. Ed Enjoyment	3.40	.84	40	3.05	.87	18	3.68	.72	22
12. Ed Alternative	3.27	1.74	37	3.29	1.83	17	3.25	1.71	20
13. Age	27.01	10.41	100	28.19	10.91	59	25.32	9.53	41
14. Youth Comm	2.96	.53	100	2.97	.52	59	2.95	.54	41
15. Residence Comm	3.11	.62	100	3.17	.56	59	3.02	.69	41
16. Children	.81	1.24	100	.93	1.37	59	.63	1.02	41
17. Income	8.85	5.56	98	8.61	4.92	59	9.20	6.46	39
18. Siblings	2.38	1.65	100	2.37	1.57	59	2.39	1.77	41
19. Import of Rel	3.00	.85	100	2.73	.80	59	3.39	.77	41
20. Personal Amt	3.91	1.86	100	3.68	1.76	59	4.24	1.97	41
21. Personal Imp	2.39	.91	100	2.20	.87	59	2.66	.88	41
22. Ed Self Diff	5.03	.50	100	4.97	.56	59	5.12	.40	41
23. Ed Self Comp	3.36	.52	100	3.46	.57	59	3.22	.42	41
24. Ed Father Comp	2.98	.80	100	2.98	.73	59	2.97	.91	41
25. Satis El Ed	2.94	.93	100	3.17	1.00	59	3.08	1.27	41

TABLE 48.--(cont.)

26.	Satis Sec Ed	3.07	1.07	100	3.05	.97	59	3.10	1.20	41
27.	Satis Univ	3.47	1.02	99	3.52	1.02	59	3.40	1.03	40
28.	Satis Business	2.91	1.06	100	2.68	1.07	59	3.24	.97	41
29.	Satis Labor	2.53	1.08	100	2.42	1.10	59	2.68	1.03	41
30.	Satis Loc Gov	2.33	1.06	100	2.27	1.05	59	2.41	1.09	41
31.	Satis Nat Gov	2.87	1.78	100	2.90	1.20	59	2.83	1.16	41
32.	Satis Health S	3.50	2.31	100	3.41	1.33	59	3.63	1.28	41
33.	Satis Churches	3.12	1.19	100	3.07	1.13	59	3.19	1.29	41
34.	Res Length	3.70	1.49	100	3.68	1.50	59	3.73	1.48	41
35.	Res Change	2.26	1.18	100	2.30	1.21	59	2.19	1.17	41
36.	Job Change	58.37	11.65	100	63.81	12.49	59	50.53	1.75	41
37.	Rel Adh	3.71	1.24	100	3.33	1.29	59	4.24	.94	41
38.	Change Health	3.45	.82	100	3.39	.87	59	3.54	.74	41
39.	Ch Child C	2.82	.82	99	2.83	.85	59	2.80	.79	40
40.	Ch Birth C	1.75	.78	100	1.68	.65	59	1.85	.84	41
41.	Ch Automat	3.18	.88	100	3.19	.97	59	3.17	.74	41
42.	Ch Pol Lead	2.33	.96	100	2.42	.97	59	2.19	.93	41
43.	Local Ed	2.85	.92	100	2.80	.92	59	2.93	.93	41
44.	Federal Ed	2.67	1.02	100	2.83	.98	59	2.44	1.05	41
45.	Ed Planning	2.08	.72	97	2.05	.73	59	2.13	.70	38
46.	Self Change	2.43	.78	100	2.35	.87	59	2.54	.64	41
47.	Change Rule	2.83	.88	99	2.84	.87	58	2.80	.90	41
48.	Ch Rtn Job	2.94	.93	100	2.93	.98	59	2.95	.83	41
49.	Personal Fam	3.63	.73	100	3.54	.79	59	3.76	.62	41
50.	Personal Oth	3.03	.88	100	2.86	.84	59	3.27	.89	41
51.	Planning	3.35	.77	100	3.29	.79	59	3.44	.74	41
52.	Happiness	6.53	3.19	95	6.86	3.17	58	6.00	3.19	37
53.	HP Prim Cnct	5.33	2.37	76	4.72	2.24	46	6.27	2.30	30
54.	HP Var Cnct	6.91	3.58	77	6.48	3.80	46	7.55	3.19	31
55.	HP Amt Cnct	3.13	1.44	77	3.06	1.42	47	3.23	1.50	30

TABLE 48.--(cont.)

56.	HP Avoid	2.88	1.17	76	2.80	1.12	46	3.00	1.26	30
57.	HP Gain	1.22	.58	76	1.13	.40	46	1.37	.76	30
58.	HP Income	2.23	1.71	12	2.00	1.73	5	2.43	1.81	7
59.	HP Enjoyment	3,00	.75	76	2.82	.72	45	3.26	.73	31
60.	HP Alternative	2.75	1.98	24	3.00	2.00	11	2.54	2.02	13
61.	MR Amount	1.84	1.06	100	1.78	1.00	59	1.93	1.15	41
62.	EDP Amount	1.59	.98	100	1.59	.95	59	1.58	1.05	41
63.	HP Content	45.29	6.05	100	44.32	5.59	59	42.36	5.52	41
64.	HP Intensity	59.49	7.83	100	58.28	7.63	59	61.22	7.89	41
65.	Ed Trad Content	27.54	2.84	100	27.78	3.08	59	27.19	2.44	41
66.	Ed Trad Intens	31.41	3.62	100	31.42	3.42	59	31.39	3.94	41
67.	Ed Prog Content	30.04	3.35	100	29.93	3.57	59	30.19	3.05	41
68.	Ed Prog Intens	32.81	3.48	100	32.98	3.61	59	32.56	3.32	41
69.	BP Content	40.18	7.10	100	41.97	7.19	59	37.61	6.18	41
70.	BP Intensity	60.69	8.69	100	58.42	8.06	59	63.95	8.61	41

APPENDIX B

Research Instruments

1. Attitudes Toward Education
2. Survey of Interpersonal Values
3. Personal Questionnaire
4. Attitudes Toward Disabled Persons
5. Personal Questionnaire - HP
6. Attitudes Toward Blind Persons
7. Definitions of Disability

APPENDIX B

Instrumentation

B-1 Attitudes Toward Education

No. _____ Location _____

Male _____ Group _____

Female _____ Date _____

EDUCATION SCALE

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

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

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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
   2. Disagree
   3. Agree
   4. Strongly agree

   About how strongly do you feel about your answer?

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

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

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

   About how strongly do you feel about your answer?

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

3. Schools of today are neglecting reading, writing, and arithmetic: the three R's.

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

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

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

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

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

About how strongly do you feel about your answer?

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

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

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

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

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

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

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

About how strongly do you feel about your answer?

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

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

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

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

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

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

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

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

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

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

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

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

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

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

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

About how strongly do you feel about your answer?

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

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

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

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all
2. Not very strongly
3. Fairly 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
2. Disagree
3. Agree
4. Strongly agree

About how strongly do you feel about your answer?

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

APPENDIX B

Instrumentation

B-2 Survey of Interpersonal Values

SURVEY OF INTERPERSONAL VALUES

LEONARD V. GORDON

NO_____ LOCALITY_____

MALE_____ FEMALE_____ GROUP_____
(Please indicate)

DIRECTIONS

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

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

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

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

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

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

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

You would leave the remaining statement unmarked.

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

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

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

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

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

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

APPENDIX 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

3. 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

If 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.

4. About how much have you worked in schools or educational settings? Please <u>circle</u> the number of the one <u>best answer</u>.

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

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

Less than 10%	1
Between 10 and 25%	2
Between 25 and 50%	3
Between 50 and 75%	4
Between 75 and 100%	5

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

I definitely have disliked it	1
I have not liked it very much	2
I have liked it somewhat	3
I have definitely enjoyed it	4

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

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

SECTION 2: Personal Information

8. How old are you? (Write age in box) [ ]

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

Country 1

Country Town 2

City 3

City Suburb 4

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

Country 1

Country Town 2

City 3

City Suburb 4

11. Where have you mainly lived during the past three years?

Country	1
Country Town	2
City	3
City Suburb	4

12. What is your marital status?

Married	1
Single	2
Divorced	3
Widowed	4
Separated	5

13. How many children do you have? (Please write number in box)

[ ]

14. Please answer either A or B, whichever applies best to your present situation. Please read both choices, then answer only one.

A. If you are self-supporting, about what is your total yearly income before taxes (or, if you are married, the total yearly income in the family). Include extra income from any regular sources such as dividends, insurance, etc. Please write the total in the box.

[ ]

B. If you are not self-supporting (or if you are married, if your family is not self-supporting), what is the approximate total yearly income before taxes of the persons who mainly provide your support (that is, parents, relatives or others). Make the best estimate you can.

[ ]

15. According to your answer to Question 14, about how does your income compare with that of most people in the total community where you live?

Much lower	1
Lower	2
About the same	3
Higher	4
Much higher	5

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

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

18. About 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

19. What is your religion?

Catholic	1
Protestant	2
Jewish	3
None	4
Other (Please specify) _____	5

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

I have no religion 1

Not very important 2

Fairly important 3

Very important 4

21. 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

22. 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

23. 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 you otherwise contact in the pursuit of your job.

None 1

Less than 10% 2

Between 10 and 30% 3

Between 30 and 50% 4

Between 50 and 70% 5

Between 70 and 90% 6

More than 90% 7

24. Which social class do you believe you are in?

Lower. 1

Lower Middle 2

Middle 3

Upper Middle 4

Upper 5

Upper Upper 6

25. 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

26. About how much education do you have? (Circle only one)

3 years of school or less	1
6 years of school or less	2
9 years of school or less	3
12 years of school or less	4
Some college or university	5
A college or university degree	6
Some graduate work beyond the first degree	7
One or more advanced degrees	8
Other (Please note number of years of study or diploma obtained _____)	9

27. About how does your education compare with that of most people?

Much less than most	1
Less than most	2
About average	3
More than most	4
Much more than most	5

28. About 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

29. What type of living arrangement do you have?

Rent a house	1
Rent an apartment	2
Rent a room (meals in a restaurant, etc.)	3
Purchase room and board (rooming house, etc.)	4
Own an apartment	5
Own a house	6
Other (Please specify) _____	7

30. Please answer <u>either</u> A or B. Please <u>read both</u> 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 <u>own</u> 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) . . . . . [ ]

31. In every community each group (for example, schools, businessmen, labor, the local government) has a different job to do for the community. In your community, would you say that the schools are going an <u>excellent</u>, <u>good</u>, <u>fair</u>, or <u>poor</u> job? How about businessmen? Labor? The local government? The doctors and hospitals? The church? (Please circle the appropriate number to indicate how you feel each job is being done.) Please answer for <u>each group</u>.

A. Elementary Schools

Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5

31. 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

31. 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

32. 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

33. Have you changed your residency (from one community to another) during the past two years? Please circle the correct number.

Yes 1

No 2

34. Have you changed your employment during the past two years? Please circle the correct number.

Yes 1

No 2

35. About how many times have you changed residency (communities) during the past 10 years? Please circle the correct number.

None 1

1 Time 2

2 - 3 Times 3

4 - 6 Times 4

7 - 10 Times 5

Over 10 Times 6

36. About how many times have you changed jobs during the past 10 years? Please circle the correct number.

None	1
1 Time	2
2 - 3 Times	3
4 - 6 Times	4
7 - 10 Times	5
Over 10 Times	6

37. Please state your occupation. Briefly state the title or name of your job and the nature of your work.

_____

_____

_____

38. In 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

39. 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

40. 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

41. 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

42. People have different ideas about what should be done concerning automation and other new ways of doing things. How do <u>you feel</u> 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

43. Running a village, city, town, or any governmental organization is an important job. What is your feeling on the following statement?

"Political leaders should be changed <u>regularly</u>, even if they are doing a good job."

Strongly disagree	1
Slightly disagree	2
Slightly agree	3
Strongly agree	4

44. Some people believe that more <u>local</u> 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

45. Some people believe that more <u>federal</u> 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

46. 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

47. Some people are 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

48. I find it easier to follow rules than to do things on my own.

Agree strongly 1

Agree slightly 2

Disagree slightly 3

Disagree strongly 4

49. I like the kind of work that lets me do things about the same way from one week to the next. Circle the number of your choice.

Agree strongly 1

Agree slightly 2

Disagree slightly 3

Disagree strongly 4

50. A good son will try to find work that keeps him near his parents even though it means giving up a good job in another part of the country.

Agree strongly 1

Agree slightly 2

Disagree slightly 3

Disagree strongly 4

51. We should be as helpful to people we do not know as we are to our friends.

Disagree strongly 1

Disagree slightly 2

Agree slightly 3

Agree strongly 4

52. Planning only makes a person unhappy because your plans hardly ever work out anyway.

Agree strongly 1

Agree slightly 2

Disagree slightly 3

Disagree strongly 4

53. Which 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

54. 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 Attitudes Toward Disabled Persons

No. _____ Location _____

Male _____ Group _____

Female _____ Date _____

HANDICAPPED PERSONS SCALE

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

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

---

1. Parents of handicapped children should be less strict than other parents.

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

   About how strongly do you feel about your answer?

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

2. Physically handicapped persons are just as intelligent as non-handicapped ones.

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

   About how strongly do you feel about your answer?

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

3. Handicapped people are usually easier to get along with than other people.

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

About how strongly do you feel about your answer?

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

4. Most physically handicapped people feel sorry for themselves.

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

About how strongly do you feel about your answer?

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

5. Physically handicapped people are the same as anyone else.

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

About how strongly do you feel about your answer?

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

6. There shouldn't be special schools for physically handicapped children.

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

About how strongly do you feel about your answer?

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

7. It would be best for physically handicapped persons to live and work in special communities.

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

About how strongly do you feel about your answer?

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

8. It is up to the government to take care of physically handicapped persons.

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

About how strongly do you feel about your answer?

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

9. Most physically handicapped people worry a great deal.

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

About how strongly do you feel about your answer?

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

10. Physically handicapped people should not be expected to meet the same standards as non-handicapped people.

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

About how strongly do you feel about your answer?

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

11. Physically handicapped people are as happy as non-handicapped ones.

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

About how strongly do you feel about your answer?

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

12. Severely physically handicapped people are no harder to get along with than those with minor handicaps.

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

About how strongly do you feel about your answer?

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

13. It is almost impossible for a handicapped person to lead a normal life.

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

About how strongly do you feel about your answer?

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

14. You should not expect too much from physically handicapped people.

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

About how strongly do you feel about your answer?

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

15. Physically handicapped people tend to keep to themselves much of the time.

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

About how strongly do you feel about your answer?

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

16. Physically handicapped people are more easily upset than non-handicapped people.

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

About how strongly do you feel about your answer?

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

17. Physically handicapped persons cannot have a normal social life.

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

About how strongly do you feel about your answer?

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

18. Most physically handicapped people feel that they are not as good as other people.

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

About how strongly do you feel about your answer?

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

19. You have to be careful of what you say when you are with physically handicapped people.

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

About how strongly do you feel about your answer?

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

20. Physically handicapped people are often grouchy.

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

About how strongly do you feel about your answer?

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

APPENDIX B

Instrumentation

B-5 Personal Questionnaire - HP

No. _____ Location _____

Male _____ Group _____

Female _____ Date _____

PERSONAL QUESTIONNAIRE: HP

This questionnaire deals with your contacts with physically handicapped persons, and what you know about them. Perhaps you have had much contact with physically handicapped persons, or you may have studied about them. On the other hand, you may have had little or no contact with physically handicapped persons, and may have never thought much about them at all.

For the purposes of this investigation, the answers of all persons are important, so even if you know very little or nothing about physically handicapped persons your answers are important.

No. _____ 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
2. partially blind
3. deaf (and deaf-mute)
4. partially deaf
5. crippled or amputated limbs
6. disfigured (such as severe burns or scars on face)
7. spastic (or cerebral palsy)
8. speech disorders
9. none

2. Which other groups have you also had some experience with? Please circle the number of each additional group with which you have had some experience.

1. blind
2. partially blind
3. deaf (and deaf-mute)
4. partially deaf
5. crippled or amputated limbs
6. disfigured (such as severe burns or scars on face)
7. spastic (or cerebral palsy)
8. speech disorders
9. none

If on the preceding question you indicated that you have had no personal experience with physically handicapped persons (by circling response No. 9, please skip questions #3 through #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-6 Attitudes Toward Blind Persons

No._____ Location_____

Male_____ Group_____

Female_____ Date_____

BLIND PERSONS SCALE

Instructions: Given below are 20 statements of opinion about visually handicapped persons. We all think differently about blind individuals. 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 statements. 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. A blind person might as well accept the fact that blindness makes people pretty helpless.

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

   About how strongly do you feel about your answer?

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

2. There are things worse than being blind.

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

   About how strongly do you feel about your answer?

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

3. Blind people are constantly worried about the future.

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

   About how strongly do you feel about your answer?

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

4. Blind people are more easily upset than sighted people.

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

About how strongly do you feel about your answer?

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

5. It's difficult to understand the blind because they keep so much to themselves.

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

About how strongly do you feel about your answer?

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

6. Most blind people feel that they are worthless.

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

About how strongly do you feel about your answer?

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

7. Most blind people are dissatisfied with themselves.

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

About how strongly do you feel about your answer?

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

8. Blind people are used to failing in most of the things they do.

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

About how strongly do you feel about your answer?

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

9. You should not expect too much from a blind person.

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

About how strongly do you feel about your answer?

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

10. Blindness does not change the person any more than any other physical handicap.

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

About how strongly do you feel about your answer?

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

11. A blind person can't afford to talk back to people.

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

About how strongly do you feel about your answer?

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

12. It makes me feel a little guilty to know that I can see and others cannot.

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

About how strongly do you feel about your answer?

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

13. Many blind people are economically independent.

1. Strongly disagree
2. Disagree
2. Agree
4. Strongly agree

About how strongly do you feel about your answer?

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

14. Acceptance of blindness is the same thing as acceptance of anything else in life.

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

About how strongly do you feel about your answer?

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

15. I feel that blindness is as hard to bear as complete paralysis.

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

About how strongly do you feel about your answer?

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

16. The blind adult is not quite as mature or "grown-up" as the sighted adult.

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

About how strongly do you feel about your answer?

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

17. My attitude towards a blind person would be based more upon his personality than upon the fact that he is blind.

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

About how strongly do you feel about your answer?

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

18. It is very difficult to make a blind person change his mind once he has decided on something.

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

About how strongly do you feel about your answer?

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

19. Blindness has little or no effect upon intelligence.

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

About how strongly do you feel about your answer?

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

20. A blind person is constantly worried about what might happen to him.

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

About how strongly do you feel about your answer?

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

APPENDIX B

Instrumentation

B-7 Definitions of Disability

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 C

Variables, Administration Procedures, Code Book, Code Forms

1. Basic Variables of the Study
2. Administration Procedures
3. Code Book
4. Special Instructions for Scoring Kansas Data
5. Data Transcription Sheet
6. FCC I and FCC II Variable - Computer Print-Out Code Form
7. Administrator's Summary Sheet
8. Procedures for Producing Item Directionality

APPENDIX C

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. Religiousity 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

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 <u>five</u> 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 <u>not to look</u> at them ahead of time.

   Do not leave instruments with respondents except when absolutely necessary and in such cases <u>mark on them later</u> to indicate they were given in this manner.

7. Respondent identification. See discussion under Points Numbered 3 and 6 above. Remember we need a <u>minimum of 50 persons</u> 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 <u>all five instruments</u>, using the <u>same respondent number and group</u>. 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.

   <u>Each time you mail a package of data</u>, you should send me a letter describing it so I can keep records.

APPENDIX C

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 questionnaire question alternative and 4 is the code).

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* 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.

Column-Ques.	Item Detail	Code	Recode*
1,2,3 Face Sheet	Nation and Location	UNITED STATES 001 - Mich., Mt. Pleasant 002 - Mich., Cadillac 003 - Mich., Ann Arbor 004 - Mich., Port Huron 005 - Mich., Lansing 006 - Mich., Walden Woods 007 - Mich., Flint 008 - Mich., Misc., Kal., Mid. 009 - Kansas, Wichita 010 - Ohio, Tiffin 011 - West Virginia 012 - Kentucky 013 - Georgia LATIN AMERICA 101 - Costa Rica 102 - Colombia 103 - Peru 104 - Argentina 105 - Mexico 106 - Surinam EUROPE 201 - England 202 - Holland 203 - Belgium 204 - France 205 - Yugoslavia 206 - Denmark 207 - Germany ASIA 301 - Israel 302 - Japan 303 - India 304 - Formosa AFRICA 401 - Kenya 402 - Rhodesia 403 - South Africa	

Column-Ques.		Item Detail	Code	Recode*
4,5	Face Sheet	Group Number (administration)	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, Professional, Business, Medical 4 - Code 50 - 86, White Collar, 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 content area	LATIN AMERICA 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 +.

Column-Ques.	Item Detail	Code	Recode*
13, 14 Face Sheet (continued)		UNITED STATES 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 (special educ. - intra) 35 Jordan: Michigan - Mt. Pleasant (Spec. Ed.) ASIA 51 Cessna: Japan (total plus university students and government employees) EUROPE 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 Administration (Use the actual day)	01 to 31	
17,18 Face Sheet	Month of Administration	01 - January 02 - February 03 - March . .	

Column-Ques.	Item Detail	Code	Recode*
17, 18 Face Sheet (continued)		10 - October 11 - November 12 - December	
19, 20 Face Sheet	Year of Administration	64 - 1964 65 - 1965 66 - 1966 . . 70 - 1970	
21 Face Sheet	Type of Administration	1 - Group 2 - Self-administered 3 - Interview, individual + - No information	
22, 23 37 Q'aire	Occupation of Respondent* (Specific)	(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, Dentists, etc.) 06 - Other professional (Psych., Soc. worker, Speech, etc., not primarily in public or private schools) 07 - Para-medical (Nurse, O.T., R.T., P.T., ect.) 08 - Unskilled Help (Hospital aide, janitor, any non-prof., non-tech. role) 09 - Other	

* See page 4-2

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	(10 - 19) Educational personnel other than Rehab. and Spec. Ed. 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 (20 - 29) Medical, other than Rehab. and Spec. Ed. 20 - General practitioners 21 - Surgeons 22 - Psychiatrists or psychoanalysts 23 - Dentists 24 - All other medical specialties 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

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	(30 - 39) Professional and Technical, not Spec. Ed. and Rehab. or Medical or Educ. 30 - Engineers (degrees): civil, electrical, mechanical, etc. 31 - Lawyers, attorneys, public accountants 32 - Ministers, clergymen 33 - Musicians 34 - Clinical psychologist 35 - Researchers, scientists, not primarily in education 36 - Social workers, etc. 37 - 39 Other (40 - 45) Business and Industry, Managers, officials, prop.'s 40 - Gov't and other bureaucratic officials: public administrators and officers, union officials, stage inspectors, public utility, telephone officials, etc. 41 - Manufacturing, industrial officials, exec's, etc. 42 - Non-mfg., service, industry: bankers, brokers, insurance, real estate 43 - Retail trades: food, clothing, furniture, gasoline, vehicle sales, etc. 44 - General: i.e., manager executive, etc., no other qualifications 45 - Open (46 - 49) Farm owners, operators and managers of large farms, e.g., heavy equipment and/or many empl.	

* See page 4-2

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	46 - Farm owner 47 - Farm operator (renter) 48 - Farm manager 49 - Open (50 - 59) White Collar: office, clerical, etc. 50 - Clerical and similar: tellers, bookkeepers, cashiers, secretaries, shipping clerks, attendants, 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 (60 - 69) Blue Collar: craftsmen, foremen, and kindred work 60 - Craftsmen: carpenters, bakers, electricians, plumbers, machinists, tailors, toolmakers, photographers, etc. 61 - Foremen: all construction, mfg., transportation 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

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	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 (70 - 74) Serivce and Private Household workers) 70 - Private household: laundress, housekeeper, cook 71 - Firemen and policemen, sheriffs, and baliffs 72 - Attendents, professional and personal (valet, masseur, misc. mfg.) 73 - Misc. attendents and services: hospital attendents, bootblacks, cooks 74 - Open (75 - 79) Military Personnel 75 - Ranking officers, all services (Navy Commander and up, Army and Marines Colonel and up) 76 - Junior Officers, Army and Air 77 - Junior Officers, Navy and Marines 78 - Non-commissioned personnel, Army and Air 79 - Non-commissioned personnel, Navy and Marines (80 - 86) Laborers	

* See page 4-2

Column-Ques.	Item Detail	Code	Recode*
22,23 37 Q'aire (continued)	Occupation of Respondent* (Specific)	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, lumbermen, miners, gardeners, teamsters, garage laborers, etc. 82 - Manufacturing of durable goods: wood, clay, stone (stonecutter), metal, glass plastic, machinery, of all kinds 83 - Mfg. of non-durable goods: food (bakery, beverages, etc.), tobacco, clothing, cloth, paper, printing, chemicals, rubber, leather, etc. 84 - Non-mfg. industries: railroad, construction, transportation, workers, etc. 85 - 86 Open (87) No employment 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

Column	Ques.	Item Detail	Code	Recode*
24	37 Q'aire	Current Employment Status*	1 - Employed or self-employed 2 - Retired 3 - Temporarily out of work 4 - Housewife, but formerly employed 5 - Unable to work (other than retired or housewife) but formerly employed 6 - Student or persons trained for employment but not working for various reasons	
25 thru 44	1 thru 20 H-P Content**	All questions in handicapped persons scale are to be scored from raw data. See instructions below.	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree	

* Instructions for Coder: EMPLOYMENT STATUS, COLUMN 24. Code from questionnaire Question 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.
2 3
3 2
4 1

Column-Ques. Item Detail Code Recode*

2. Special instructions for NO RESPONSE. Count the number of NO RESPONSE items, if more than 6 occur, do not score respondent for this scale. If there are 6 or less in total, and 3 or less in sequence, the NO RESPONSE statement is to be scored either 1 or 2 by the random procedure of coin flipping.

   If a head is obtained, the score assigned will be 1.
   If a tail is obtained, the score assigned will be 2.

3. TOTAL THE RAW SCORES FOR EACH RESPONDENT AND WRITE THE TOTALS ON THE TRANSCRIPTION DATA SHEET DIRECTLY BELOW THE COLUMN TOTALED.*

4. INTENSITY RAW SCORES FOR EACH STATEMENT ARE TO BE SCORED ON THE DATA SHEET EXACTLY AS THEY APPEAR ON THE QUESTIONNAIRE: i.e., IF 1 IS CIRCLED IN THE INTENSITY SECTION OF QUESTION ONE, SCORE IT AS 1 ON THE CORRESPONDING SECTION OF THE TRANSCRIPTION SHEET.

5. Dichotomization Procedures (i.e., for MSA - applied to all scales).

   a) Using raw data scores (i.e., the actual number circled by the respondent) via the Hafterson CUT Program on the M.S.U. CDC 3600, determine the point of least error for each item on the content scales.

   b) Using this point (i.e., between 1 and 2, or between 2 and 3 or between 3 and 4) rescore the items, via recode cards, as 0, 1 via the Hafterson MSA Program on the M.S.U. CDC 3600 to determine which items form a scale. Run at both .01 and .05 level.

   c) For Handicapped Persons Scale[1], items are scored 0 above the column break, 1 below the column break. For education Scale scoring, the reverse is true: items are scored 1 above the column break, 0 below the column break.

   d) Using the same procedure in point 5-a above, determine the CUT points for the intensity component of each item.

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* 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.

Column-Ques.	Item Detail	Code	Recode*

5. e) Enter the MSA Program with the CUT points for the intensity component and scale as in Point No. 5-b for content.

   f) Adjusted total scores for content and intensity. Sum the dichotomized content and intensity scores (i.e., 0, 1) obtained by the above procedure for each respondent on these items that scaled for both content and intensity. Maximum score will be 1 x the number of the same items that scaled on both content and intensity.

   g) Zero Point. Using only the items that scaled for both content and intensity, plot and determine the "zero point" for each cultural group (or other desired groupings) via the method detailed on pages 221-234 by Guttman (1950).

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 thru 64	1 thru 20 H-P Intensity*	Handicapped Persons Scale Intensity	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly

1. Except for NO RESPONSE, intensity scores are to be determined as noted in the preceding section regarding Content.

2. Those scales which are rejected because of an excess of NO RESPONSE items in respect to content will of course also be rejected for intensity. Intensity questions which are unscored, but which occur when the content part of the question is scored, will be scored as follows:

   If content score is 1 or 4, score intensity 4.
   If content score is 2 or 3, score intensity just below the mean intensity score for that item; i.e. mean intensity of the group.

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* Instructions for Coder: HANDICAPPED PERSONS SCALE, INTENSITY, COLUMNS 45-64. See instructions 1 and 2 above and 3 on the next page.

Column-Ques.	Item Detail	Code	Recode*

3. Intensity questions which are unscored, and which occur when the content part of the question is also unscored, will be scored at the highest point below the respondent's own median on the other intensity questions in the questionnaire; i.e., if respondent generally scored intensity questions either 4 or 3, so that the median was in between 3 and 4, score NO RESPONSE 2, and so forth.

65 thru 74	3,4,6, 10,11 12,13 14,18 19*	Education Scale Traditional, Content Responses **	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree

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.

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* 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.

Column-Ques.		Item Detail	Code	Recode*
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	

Column-Ques.		Item Detail	Code	Recode*
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 thru 34	3,4,6,10, 11,12,13, 14,18,19	Education Scale, Traditional, Intensity Responses*	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly	
35 thru 44	1,2,5,7, 8,9,15, 16,17,20	Education Scale, Progressive, Content Responses**	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree	

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* 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.

Column-Ques.		Item Detail	Code	Recode*
45 thru 54	1,2,5,7, 8,9,15, 16,17,20	Education Scale, Progressive Intensity Responses*	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly	
55-56	Raw S score	Value scale, Support score**	01 - 32	
57-58	Raw C score	Value scale, Conformity score**	01 - 32	
59-60	Raw R score	Value scale, Recognition score** (comparative)	01 - 32	
61-62	Raw I score	Value scale, Independence score**	01 - 32	
63-64	Raw B score	Value scale, Benevolence score** (asset)	01 - 32	
65-66	Raw L score	Value scale, Leadership score** (comparative)	01 - 32	

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* 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."

Column-Ques.		Item Detail	Code	Recode*
67-68	Sum of item scores, 1-20, Content	Adjusted totals based on item dichotomization, H.P. Scale, Content*	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score	
69-70	Sum of item scores, 1-20, Intensity	Adjusted totals based on item dichotomization, H.P. Scale, Intensity*	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score	
71-72	Sum of item scores, 3, 4,6,10,11, 12,13,14, 18,19	Adjusted totals based on item dichotomization Education Traditional Scale, Content*	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score	
73-74	Sum of item scores, 3, 4,6,10,11, 12,13,14, 18,19	Adjusted totals based on item dichotomization Education Traditional Scale, Intensity*	(Check dich. for no. to use here) Code will be: 00 or +9 to obtained score	

* See Card 1, page 1-12, instruction no. 5-f, to ascertain how adjusted total scores are obtained.

Column-Ques.		Item Detail	Code	Recode*
75-76	Sum of item scores, 1, 2,5,7,8,9, 15,16,17,20	Adjusted totals based on item dichotomization Education Progressive Scale, Content*	(Check here)	dich. for no. to use Code will be: 00 or +9 to obtained score
77-78	Sum of item scores, 1, 2,5,7,8,9, 15,16,17,20	Adjusted totals based on item dichotomization Education Progressive Scale, Intensity*	(Check here)	dich. for no. to use Code will be: 00 or +9 to obtained score

* See Card 1, page 1-12, instruction No. 5-f, to ascertain how adjusted total scores are obtained.

865

Column	Ques.	Item Detail	Code	Recode*
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	

Column-Ques.		Item Detail	Code	Recode*
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	
25,26	1 Q'aire	Contact group (Educ.)	Primary 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.)	Secondary 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.

Column-Ques.		Item Detail	Code	Recode*
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 respondent spent most of the time. If	1 - 1 country 2 - 2 country town 3 - 3 city 4 - 4 city suburb	

Column-Ques.		Item Detail	Code	Recode*
37 (continued)	9 Q'aire	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 Residence	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 00; if married, score -9.	1 - 01 2 - 02 3 - 03 • 10 - 10	
43,44	14 Q'aire	Yearly Income (self-family) (for other nations see Special Instructions)	UNITED STATES 01 - less than $1,000 02 - $1,000 to $1,999 03 - $2,000 to $2,999 • 10 - $9,000 to $9,999	

865

Column	Ques.	Item Detail	Code	Recode*
45	15 Q'aire	Comparative Income (self-family)	1 - 1, much lower 2 - 2, lower 3 - 3, about the same 4 - 4, higher 5 - 5, much higher	
46,47	16 Q'aire	Brothers. If the respondent answers only one question (17 or 18) and other is blank, assume it to be zero.	1 - 01 2 - 02 3 - 03 . . 10 - 10	
48,49	17 Q'aire	Sisters	Same as number of brothers	
51,51	None	Siblings - Obtain by summing above Questions 16 and 17, Col's 45, 46 and 47, 48	1 - 01 . . 15 - 15	
52	18 Q'aire	Fathers' Income: Comparative	1 - 1, much lower 2 - 2, lower 3 - 3, about the same 4 - 4, higher 5 - 5, much higher	
53	19 Q'aire	Religious Affiliation	1 - 1, Roman Catholic 2 - 2, Protestant 3 - 3, Jewish 4 - 4, None 5 - 5, Other 6 to 9, Other major religions	

Column-Ques.		Item Detail	Code	Recode*
54	20 Q'aire	Religion (Importance)	1 - 1, No religion 2 - 2, Not very 3 - 3, Fairly 4 - 4, Very	
55	21 Q'aire	Personaliàm (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-importance of)	1 - 1, not at all 2 - 2, not very 3 - 3, fairly 4 - 4, very	
57	23 Q'aire	Personalism (job-diffusion)	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	

Column	Ques.	Item Detail	Code	Recode*
60	26 Q'aire	Education (Self-amount). If more than one is circled, choose the highest amount or determine the appropriate an 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)	UNITED STATES 1 - $20 or less 2 - 21 - 40 (dollars) 3 - 41 - 75 4 - 76 - 125 5 - 126 - 200 6 - 201 - 300 7 - 300 or more	

Column	Ques.	Item Detail	Code	Recode*
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	

865

Column-Ques.		Item Detail	Code	Recode*
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	

Column-Ques.		Item Detail	Code	Recode*
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	

865

Column	Ques.	Item Detail	Code	Recode*
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	Religiousity (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	

Column-Ques.		Item Detail	Code	Recode*
33	41 Q'aire	Change Orientation (Birth control Practices)	1 - 1, always right 2 - 2, usually right 3 - 3, probably wrong 4 - 4, always wrong	
34	42 Q'aire	Change Orientation (Automation)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
35	43 Q'aire	Change Orientation (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 responsibility)	1 - 1, only parents 2 - 2, only city or local government 3 - 3, primarily federal government	
39	47 Q'aire	Change Orientation (self)	1 - 1, very difficult 2 - 2, somewhat difficult 3 - 3, slightly easy 4 - 4, very easy	
40	48 Q'aire	Change Orientation (self-role adherence)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly	

865

Column	Ques.	Item Detail	Code	Recode*
41	49 Q'aire	Change Orientation (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 orientation)	1 - 1, disagree strongly 2 - 2, disagree slightly 3 - 3, agree slightly 4 - 4, agree strongly	
44	52 Q'aire	Future Orientation (Planning)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly	
45	53 Q'aire	Future Orientation (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 Orientation (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	

Column-Ques.	Item Detail	Code	Recode*
	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 08 answered score 0. The score for this question is the score of the response alternatives circled, i.e., scores can range from 0 to 8.	
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.

Column	Ques.	Item Detail	Code	Recode*
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 NOT 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	

Column-Ques.		Item Detail	Code	Recode*
61,62	Sum of item scores 1-20 Content	Handicapped Persons Scale Total Content Raw Score, entry on transcription sheet	00-80	
63,64	Sum of item scores 1-20 Intensity	Handicapped Persons Scale Total Intensity Raw Score, entry on transcription sheet	00-80	
65,66	Sum of item scores 3, 4,6,10,11, 12,13,14, 18,19	Education Scale, Traditional Total Raw Content score entry on transcription sheet	00-40	
67,68	Sum of item scores 3, 4,6,10,11, 12,13,14, 18,19	Education Scale, Traditional Total Raw Intensity, score entry on transcription sheet	00-40	

Column-Ques.		Item Detail	Code	Recode*
69,70	Sum of item scores 1, 2,5,7,8, 9,15,16, 17,20	Education Scale, Progressive Total Raw Content score entry on transcription sheet	00-40	
71,72	Sum of item scores 1, 2,5,7,8, 9,15,16, 17,20	Education Scale, Progressive Total Raw Intensity score entry on transcription sheet	00-40	

APPENDIX C

C-4 Special Instructions for Scoring Kansas Data

Card/Col.[1]	Ques.	Item Detail	Code[2]	
		Card 1		
1:4-5		Group Numbers	-01	Institute of Logopedics-Dickie - Regular Teachers and 6 Special Ed.
			-02	Institute of Logopedics-Weir - Special Education
			-03	Institute of Logopedics-Weir - Special Education Personnel
			-04	Institute of Logopedics-Weir - Special Education Personnel
			-05	Institute of Logopedics-Dickie - Special Education & Ancillary
			-06	Emporia State Teachers College-Dickie, Special Education of Public School
			-07	Institute of Logopedics-Dickie - Special Ed., Speech Pathologists
			-08	Corbin Education Center-Wichita State University-Dickie, Regular Elementary and Secondary
			-09	Institute of Logopedics-Weir - Regular Elementary and Secondary
			10	Town House Motel-Wichita-Dickie-Labor
			11	Ramada Inn-Wichita-Dickie-Labor
			12	YMCA-Wichita-Dickie-Labor
			13.	Wichita State University-Weir-Labor
			14	Wichita State University-Weir-Labor
			15	Wichita State University-Weir-Labor
			16	Institute of Logopedics-Weir-Labor

1. The Card/Col. designations refers to the location in the Code Book. International Study-865
2. Designates changes and/or additions to the 865 Code Book. All card designations over 4 will indicate additions. In such cases the full code will be given since it will be new and not contained in the 865 code book.

Card/Col.	Ques.	Item Detail	Code

Card 1 (Contd.)

17 Town House Motel-Dickie-Managers
18 Ramada Inn-Wichita-Dickie-Managers
19 YMCA-Wichita-Dickie-Managers
20 Wichita State Univ.-Weir-Managers
21 Wichita State Univ.-Weir-Managers
22 Wichita State Univ.-Weir-Managers
23 Home-Weir-Managers
24 Spec. Ed.

Card 5

5:1-24	Same as Card 1 except Column 11-12 (i.e. Deck or Card no. 05)		
25-44	1 thru 20 BP Content[3]	All questions in Blind Persons (BP) Scale are to be scored from raw data, See instructions below and on pages 1-10.	1-1, strongly disagree 2-2, disagree 3-3, agree 4-4, strongly agree
45-64	1 thru 20 BP Intensity	BP Scale Intensity. See pages 1-11 for instructions for scoring intensity.	1-1, not strongly at all 2-2, not very strongly 3-3, fairly strongly 4-4, very strongly
65-66	Sum[2] of item scores, 1-20 Content (BP)	BP Scale. Total Content raw score.	00-80
67-68	Sum[2] of item scores, 1-20 Intensity (BP)	BP Scale. Total Intensity raw score.	00-80

Instructions to Coder: Blind Persons Scale Scoring, Col's 25-44.

1. Reverse the content response numbers for the Blind Persons Scale (not the intensity response numbers) for items 2, 10, 13, 14, 17, 19. See also p. 1-10 for procedures on HP scale. Special instructions for No Response. Same as number 2, p. 1-10.
2. Same as 3, page 1-10, International Code Book-865.
3. Same as 5, page 1-11, International Code Book-865,

Column	Ques.	Item Detail	Code
69-70	Sum^3 of adjusted item scores. Content (BP)	Adjusted Totals based on item dichotomization Content (BP)	00- (Check dich. for no. to use here.) See pp. 1-11 for instr.
71-72	Sum^3 of adjusted item scores Intensity (BP)	Adjusted totals based on item dichotomization Intensity (BP)	00- (Check dich. for no. to use here.) See pp. 1-11 for instr.
6:1-24	Same as Card 1 except Column 11-12 (i.e. Deck or Card no. 06.)		
25-44	1 thru 20 HHP Content	All questions in Hearing Handicapped Persons Scale (HHP) are to be scored from raw data. See instructions below and on p. 1-10.	1-1, strongly disagree 2-2, disagree 3-3, agree 4-4, strongly agree
45-64	1 thru 20 HHP Intensity	HHP Intensity See pages 1-11 for instructions for scoring intensity.	1-1, not strongly at all 2-2, not very strongly 3-3, fairly strongly 4-4, very strongly
65-66	Sum^2 of item scores, 1-20 Content (HHP)	HHP Scale. Total Content raw score.	00-80
67-68	Sum^2 of item scores, 1-20 Intensity (HHP)	HHP Scale. Total Intensity raw score.	00-80
69-70	Sum^3 of adjusted item scores Content (HHP)	Adjusted totals based on item dichotomization Content (HHP)	00- (Check dich. for no. to use here.) See p. 1-11 for instructions.
71-72	Sum^3 of adjusted item scores. Intensity (HHP)	Adjusted totals based on item dichotomization Intensity (HHP)	00- (Check dich. for no. to use here.) See p. 1-11 for instructions.

Instructions to coder: Hearing Handicapped Persons Scale, Col's 25-44

1. Reverse the content response numbers for the HHP Scale (not the intensity response numbers) for items 1,7,10,15. See also p. 1-10 of International Code Book - 865 for procedures on HP Scale. Special instructions for no response; Same as number 2,p.1-10, International Code Book 865.
2. See page previous.
3. See previous page.

APPENDIX C

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

C-6 FCC I and FCC II Variable - Computer Print-Out Code Form

Colombia (102)

FCC 1

Field No.	Question	Variable Name	Col.
		Card 1	
1	Face Sheet of Scales	Nation	3
2	Face Sheet of Scales	Sex	8
3	37 Q'aire	Interest Group Occupation	9
4	Face Sheet of Scales	Type of Administration	21
5	37 Q'aire	Current Employment Status	24
6-25	H-P Scale	H-P Content	25-44
26-45	H-P Scale	H-P Intensity	45-64
46-55	Education Scale	Trad. Education-Content	65-74
		Card 2	
	1st 24 Cols. SAME as Card 1 except for Col. 11 and 12 (i.e. Deck or Card No.)		
56-65	Education Scale	Trad. Education-Intensity	25-34
66-75	Education Scale	Prog. Education-Content	35-44
76-85	Education Scale	Prog. Education-Intensity	45-54
		Card 3	
	1st 24 Cols. SAME as Card 1 except for Col. 11 and 12 (i.e. Deck or Card No.)		
86	4 Q'aire	Contact (amount-education)	31
87	5 Q'aire	Contact (gain from education)	32
88	6 Q'aire	Contact (enjoyment-education)	33
89	7 Q'aire	Contact (alternatives to education)	34
90	9 Q'aire	Early Youth Community	37

FCC 1 (cont.)

Field No.	Question	Variable Name	Col.
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
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	Institutional satis. (elem. schools)	65
109	31-B Q'aire	Institutional satis. (sec. schools)	66
110	31-C Q'aire	Institutional satis. (universities)	67
111	31-D Q'aire	Institutional satis. (businessmen)	68
112	31-E Q'aire	Institutional satis. (labor)	69
113	31-F Q'aire	Institutional satis. (local gov't)	70
114	31-G Q'aire	Institutional satis. (nat'l. gov't.)	71
115	31-H Q'aire	Institutional satis. (health)	72
116	31-I Q'aire	Institutional satis. (churches)	73
117	32 Q'aire	Residing (current length)	74
118	33 Q'aire	Residing (change-recent)	75

Card 4

1st 24 Cols. SAME as Card 1 except for Col. 11 and 12 (i.e. Deck or Card No.)

119	34 Q'aire	Job (change-recent)	25
120	35 Q'aire	Residing (change-frequency)	26
121	36 Q'aire	Job (change-frequency)	27
122	38 Q'aire	Religiousity (norm-conformity)	30

FCC 1 (cont.)

Field No.	Question	Variable Name	Col.
123	39 Q'aire	Change orientation (health-practice)	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-rule adherence)	40
133	49 Q'aire	Change orientation (self-routine job)	41
134	50 Q'aire	Personalism (famialism-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 prereq.)	45
138	1-Q-HP	Contact group (primary - HP)	48
139	4-Q-HP	Contact (amount of HP)	53
140	5-Q-HP	Contact (ease of avoidance)	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-emotional ill)	60

Colombia (102)

FCC 2

Field No.	Question	Variable Name	Col.
		Card 1	
1	Face Sheet	Group Number	4,5
2	37 Q'aire	Specific Occupation	22,23
		Card 2	
	1st Cols. SAME as Card 1 except for Col. 11 and 12 (i.e. Deck or Card No.)		
3		Value Scale Support Value	55,56
4		Value Scale Conformity Value	57,58
5		Value Scale Recognition Value (comparative)	59,60
6		Value Scale Independent Value	61,62
7		Value Scale Benevolence Value (asset)	63,64
8		Value Scale Leadership Value (comparative)	65,66
		Card 3	
	1st Cols. SAME as Card 1 except for Col. 11 and 12 (i.e. Deck or Card No.)		
9	1 Q'aire	Contact group (primary education)	25,26
10	2 Q'aire	Contact group (secondary education)	27,28
11	3 Q'aire	Contact (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 Cols. SAME as Card 1 except for Col. 11 and 12 (i.e. Deck or Card No.)		

FCC 2 (cont.)

Field No.	Question	Variable Name	Col.
18	37 Q'aire	Occupation (specific)	28,29
19	54 Q'aire	Future Orient. (happiness possib.)	46,47
20	2-Q-HP	Contact group (secondary HP)	49,50
31	3-Q-HP	Contact (varieties of HP)	51,52
22	HP Scale	HP Total Content Raw Score	61,62
23	HP Scale	HP Total Intensity Raw Score	63,64
24	Education Scale	Trad. Educ. Total. Cont. Raw Score	65,66
25	Education Scale	Trad. Educ. Total. Int. Raw Score	67,68
26	Education Scale	Prog. Educ. Total Cont. Raw Score	69,70
27	Education Scale	Prog. Educ. Total Int. Raw Score	71,72

APPENDIX C

C-7 Administrator's Summary Sheet

TEST ADMINISTRATION DATA

1. Group No._____ 2. Date_____ 3. Administrator_____

4. Total No. Respondents_____ 5. Male_____ 6. Female_____

7. Persons Assisting:

Name:_____ Address:_____ Title:_____

Name:_____ Address:_____ Title:_____

8. Place of Administration:_____

9. Description of Test Setting: (lighting, noise, conditions, etc.

_____

_____

10. Principal Occupational Characteristics of Respondent GRoup:

_____

_____

11. Occupational Variability of Respondent Group:

_____

_____

12. Names of Persons who directly arranged for respondent group:

Name:_____ Address:_____

Title and function_____

Name:_____ Address:_____

Title and function:_____

13. Others assisting with contacts or arrangements for respondent group:

Name:_____ Address:_____

Title and function_____

Name:_____ Address:_____

Title and function_____

14. Comments: (Group receptivity, verbal and non-verbal reactions unusual test incidents or reactions, etc.)

_____

_____

_____

_____

APPENDIX C

C-8 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

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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 (Felty, 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 Felty'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 presumedly 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 respondent[1]

   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.

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[1] See page 4

[1]As 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 sqale score. That is, all "0's" would be scored as "1's" and vice versa (as Lingoes states it, the item has been "reflected").

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