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COMPARISON OF ATTITUDES AND EFFECTS OF BRIEF ACADEMIC EXPOSURE ON ATTITUDES TOWARD MENTAL RETARDATION OF NORTHERN, SOUTHERN, AND SOUTHWESTERN BLACKS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Micheal Benoy Jackson, B.S., M.A.

* * * * *

The Ohio State University

1976

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Adviser

Department of Psychology
PLEASE NOTE:

Dissertation is not original copy. Some print is very light and indistinct. Filmed in the best possible way.


UNIVERSITY MICROFILMS.
This dissertation was dedicated to a special group of black students and parents who, despite insurmountable obstacles, poverish environments, and less than adequate financial resources; somehow manage to achieve the seemingly unachievable.
I am most deeply indebted to Dr. H. Leland, my academic advisor, who should be credited as having been the originator of many of the ideas examined and discussed in this thesis; as well as the indefatigable source of scholarly guidance and benign criticism without which this dissertation could not have been completed.

I am grateful to Dr. B. Edmonson, Dr. V. Cotter and Dr. E. Arewa for serving as members of my doctoral committee.

I am particularly indebted to Dr. W. Jones, a model since undergraduate school, Dr. F. Cudjoe and Dr. M. Slothower of Langston University; and Dr. R. McCoy and Dr. Harger of Jackson State University. Without the help of these academicians I would not have been able to obtain my experimental subjects.

Thanks is also extended to Ms. B. Grant and Ms. G. Jackson for their untiring clerical assistance, patiences, and encouragement.

The friendships of Mr. W. Simpson and Mr. R. Smith, fellow doctoral candidates, were important to me while I was a student at Ohio State University. Their involvement in and knowledge of contemporary social issues served as constant motivators.

And the final thanks has been reserved for my mother, Ms. H. Jackson, who convinced me that it was all possible.
ABSTRACT

COMPARISON OF ATTITUDES AND EFFECTS OF BRIEF ACADEMIC EXPOSURE ON ATTITUDES TOWARD MENTAL RETARDATION OF NORTHERN, SOUTHERN, AND SOUTHWESTERN BLACKS

By

Micheal Benoy Jackson, Ph.D.

The Ohio State University, 1976

Professor Henry Leland, Adviser

Statement of Problem

An examination, conducted by this investigator, of course offerings from the 125 predominantly black junior colleges, four-year colleges and universities revealed that less than 3% of the schools provided courses related to the field of mental retardation. This would seem to imply that few black students attending predominantly black schools are being academically exposed to mental retardation subject matter. An extensive review of the attitudinal literature (Chapter 2) indicated no research dealing with the attitudes of substantial samples of blacks toward the mentally retarded.

The purpose of this study was to measure the attitudes toward mental retardation of substantial samples of black students; to academically expose (provide a lecture and film) the students to subject matter on mental retardation and to determine if that academic exposure was capable of producing a significantly positive attitude change.
More specifically, this study was concerned with investigating and determining if:

(a) there are significant differences between level of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

(b) there is a significant difference between black male and female students' level of accepting attitudes toward mental retardation.

(c) academic exposure will cause a significantly positive attitude change in black students residing in the northern, southern and southwestern regions of this country.

(d) after academic exposure, there will be significant differences between level of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

(e) academic exposure will cause a more significantly positive attitude change among female than among male black students.

Instrument and Experimental Materials

The criterion instrument, The Mental Retardation Opinion-Short Form (MROS-SF), was utilized in the present investigation to provide the measurement of attitude and attitude change toward mental retardation. The normative data on the 40-item MROS-SF was devised from the responses of forty-seven professional workers (medicine, social work, psychology, education, administration) in the field of mental retardation.

Academic exposure materials consisted of two items— a series of lectures and a film. The series of lectures used were revised versions of Sartin's (1964) lectures. The film informed the viewer about the causes and effects of mental retardation and discussed
what the students responsibility to the problem is (IMC/RMC, 1973).

Experimental Design

The investigation was designed to be conducted during a week of regular class meetings within each separate population. Samples within each population were randomly divided (by classes) into four groups and the Solomon four-group design (Campbell and Stanley, 1963) was followed. Group I was the full experimental group receiving a pretest, the academic exposure (film and lecture) treatment, and a posttest. Group 2 was a control group given the pretest, the nonacademic exposure (film and lecture on non-related matter) treatment, and the posttest. Group 3 was given the same academic exposure treatment and posttest as Group 1, but was not given the pretest in order that pretest sensitivity could be analyzed. Group 4, a special control group, was given only the pretest.

Methods of Statistical Analysis

The posttest means of control groups 2 and 4 were utilized as the measure of the dependent variable: attitude toward mental retardation. The change in the MROS-SF scores, as determined by the comparison of posttest means of experimental groups 1 and 3 with posttest means of control groups, provided the measure of the variable: change in attitude toward mental retardation.

Since the experimental study was primarily concerned with determining whether the variation of the dependent variable (attitude/attitude change as determined by group and/or population means on the MROS-SF) was due to or associated with variation on three
manipulative/independent variables (geographical region, sex, academic exposure, and their respective interactions); and because all subjects within each population were randomly placed in groups following the Solomon four group design previously described, a triple classification analysis of variance (McNemar, 1962) was used to analyze the data within the 3x2x4 factorial design.

In every instance, each null hypothesis was concerned with the comparison of group and/or population means of all three populations. Since the triple classification analysis of variance did not indicate exactly which group and/or population means were significantly different from each other at the .05 level of significance, the Tukey's multiple comparison procedure (Scheffe, 1968) was employed to alleviate the problem of multiple comparisons.

Results

The results of this study indicated that there were different attitudes toward mental retardation among black males and females, and the various geographical regions used in this study.

Strong support was given to the use of academic exposure materials (film and lecture) as viable tools in the changing of blacks' attitude toward mental retardation.

Recommendations were made to: (a) incorporate the present study into a larger longitudinal study and examine the effects of brief academic exposure on attitudes after an extended period of time and (b) develop more research that identifies the most fruitful mechanism whereby mass media improves blacks' attitudes toward the mentally retarded.
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CHAPTER I

INTRODUCTION

"...for if we, as black Americans, are guilty of having negative attitudes toward other minorities, how can we expect progress to ever take place?" — Martin Luther King, Jr.

Since Edward A. Jones' graduation (first black college graduate) from Amherst College in 1826, the assessment of black college students' attitudes toward numerous issues have generally proved to be informative undertakings (Wesley, 1975). Most recently, within the mental health field, researchers have been concerned with minorities' attitudes.

For example, Childs and Carriera (1972) conducted a study to determine the existence of evident special attitudes toward mental health as a result of black or Latino minority membership. Questionnaires were administered to 103 students and results were analyzed according to sex, age and subculture. Although specific group characteristics were revealed that might be sociocultural, the overall conclusion was that attitudes related to the mental health field and its personnel were parallel to the majority population.

Similar research results have been reported by Ring and Schein (1970). These researchers attempted to determine attitudes
toward mental illness and the use of caretakers in a black community. Three hundred and eighty-eight upwardly mobile, lower-middle income black households were surveyed. Nearly 90% of the respondents reported an intention to utilize medical personnel in the event of mental or emotional problems. The general trend in attitudinal responses was accepting and understanding.

A few researchers have reported that attitudes toward mental retardation and mental illness are quite similar (Harasymiw, 1971) and that the two conditions are often confused by the public (Witsop and Taylor, 1957; Guskin, 1963; Hollinger and Jones, 1970; Lattimer, 1970). Other investigators have suggested that the public view of mental retardation was consistently more negative than for mental illness (Greenbaum and Wang, 1965). Whatever the final answer to this issue may prove to be, if positive gains are to be made within the field of mental retardation, it would seem that the general trend in attitudinal responses toward mental retardation must also be of an accepting and understanding nature.

Gunzburg (1958), and Hutt and Gibby (1965) have shown that a high relationship exists between the type of adjustment made by the mentally retarded and the reactions of society toward the mentally retarded. This implies all strata of society, including black. Not only will the reactions of society directly influence the mentally retarded but the attitudes of a society toward the mentally retarded will indirectly influence the types of programs made available for the treatment, care, and rehabilitation of the retarded (Morin, 1969).
It is generally felt that attitudes toward the mentally retarded vary a great deal. Some people feel sympathetic toward, and express pity for the child with an obvious handicap (Sartin, 1964). On the other hand, Gellman (1959) reported that prejudices toward the handicapped, with the open or hidden rejection by the non-handicapped, occur at all socio-economic levels as well as in all areas of the country.

Gellman suggested that prejudice toward the retarded is usually exhibited in the form of negative behavior and prejudgments; it is a stereotyped reaction which may be acquired during development, and which tends to emphasize devaluation and rejection of the handicapped. This has been a problem which has demanded an answer from the world community throughout the course of history, and the answer provided has varied with the different periods of history, largely depending on the cultural orientation of the society toward the mentally retarded (Thomas, 1957).

Apparently not all cultures have formed intolerant, rejecting, negativistic attitudes toward the mentally retarded. Leland and Smith (1974), in recalling a personal communication he received from a colleague, stated:

Dr. Robert Edgerton tells the story that when he was visiting a tribe in Africa, he observed a group in one village that was getting ready for its morning work. Among them he saw a young man lead an old one across the compound. The young man was not doing a good job, but he was getting the older man, who was blind, from his own hut to the larger conference hut on the far side of the village. Edgerton asked his guide about the scene and was told that the old man was a village elder who had gone blind, but whose wisdom was valued and who still participated in tribal deliberations. The young man was not smart enough to hunt or farm, but he had two good eyes and could lead the older man, if sometimes precariously, to the places he needed to go. The young man, though obviously retarded, was a contributing member of that society (p. 26-27).
It would be interesting to know if blacks of this country are as tolerant of the mentally retarded as the Africans of that community appeared to be.

Purpose of the Study

An examination, conducted by this investigator, of course offerings from the 123 predominantly black junior colleges, four-year colleges and universities revealed that less than 3% of the schools provided courses related to the field of mental retardation. This would seem to imply that few black students attending predominantly black schools are being academically exposed to mental retardation subject matter. An extensive review of the attitudinal literature (Chapter 2) indicated no research dealing with the attitudes of substantial samples of blacks toward the mentally retarded.

The purpose of this study was to measure the attitudes toward mental retardation of substantial samples of black students; to academically expose (provide a lecture and film) the students to subject matter on mental retardation and to determine if that academic exposure was capable of producing a significantly positive attitude change.

More specifically, this study was concerned with investigating and determining if:

(a) there are significant differences between level of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

(b) there is a significant difference between black male and female students' level of accepting attitudes toward mental retardation.
(c) academic exposure will cause a significantly positive attitude change in black students residing in the northern, southern and southwestern regions of this country.

(d) after academic exposure there will be significant differences between levels of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

(e) academic exposure will cause a more significantly positive attitude change among female than among male black students.

Justification of the Study

As Cronefield (1966) has stated in an historical account, attitudes toward the mentally retarded hardened during the latter years of the nineteenth and the early years of the present century. Many factors were responsible for the change. Among them were urbanization with accompanying social disorganization and growing social-class antagonisms, rapid increases in populations due largely to a continuing fall in death rate, demands on the part of the general public for better welfare services and growing fear of so-called national degeneracy (Cronefield, 1966).

This lead to openings of public residential institutions in the middle of the nineteenth century during a period of optimism regarding the trainability and curability of the mentally retarded; followed by a period of diminished hope and an emphasis on long-term custody and eugenic control (Tizard, 1970).

Passing from this cycle, the mentally retarded have moved from segregation in state hospitals or training schools to retention
at home and to placement at community foster homes or board and care facilities (Nihira and Nihira, 1975).

Within recent years the term "normalization" has been added to the nomenclature in the field of mental retardation (Kokaska, 1974). Although primarily presented in relationship to the care and management of institutional populations, normalization was expanded by investigators such as Perske (1972), Bruininks and Rynders (1971), Nirje (1969), and Wolfensberger (1972) to demonstrate the practical applications in the continuum of services for the mentally retarded.

The current national trend of expanding community care and services rather than traditional institutional care reflects the response to growing belief in the potentially positive effects of more normalized environments on development and behavior (Nirje, 1969; Wolfensberger, 1972).

This current trend of returning persons in centers for the mentally retarded to more normalized, community or home environments has been termed deinstitutionalization. According to Scheerenberger (1974):

deinstitutionalization encompasses three interrelated processes: (a) prevention of admission by finding and developing alternative community methods of care and training, (b) return to the community of all residents who have been prepared through programs of habilitation and training to function adequately in appropriate local settings, and (c) establishment and maintenance of a responsive residential environment which protects human and civil rights and which contributes to the expeditious return of the individual to normal community living, whenever possible (p. 3).
While the deinstitutionalization movement is commendable and worthy of society's best efforts, there are unresolved implications in the deinstitutionalization process. Many people in the community are still superstitious and ignorant about the causes of mental retardation and the benefits of amelioration; they look upon retardation as a contagious disease which can be contacted (Vitello, 1974).

Gottlieb and Corman became concerned with this issue and quite eloquently provided their justification of why attitude studies are needed (Gottlieb and Corman, 1975):

The recent movement toward societal integration of mentally retarded persons offers a new source of hope for these people. The hope stems from the belief that mentally retarded individuals will be freed from the dehumanizing conditions which often exist in institutions and instead will be afforded the normalizing experiences of community living. This hope, however, must be tempered by the threat inherent in the deinstitutionalization movement that retarded persons will not be accepted by the community into which they are placed, that public and political pressures will force their retreat back to institutional living, and that the institutional concept will consequently become more firmly entrenched than it ever was in the past. Difficulties encountered in the movement to place mentally ill people into community facilities in New York (New York Times, 1974) suggest that a community-based deinstitutionalization program cannot succeed without public acceptance (p. 72).

Thus, it would seem that if the mentally retarded are to be successfully integrated into black communities, negativistic attitudes toward mental retardation must be modified and changed.
Another rationale for the present study had to do with the preparation of regular and special education black teachers. Mentally retarded children of school age have traditionally not been accorded the legal right to a public school education that states assure normal children under compulsory education laws. Wald (1973) asserts:

handicapped children are discriminated against in three basic ways (1) they are either totally excluded from public school services, (2) they are allowed in school but denied any of the special help they need to benefit from school, or (3) they are mislabeled by the diagnosis-classification process so that they do not receive the proper kind of special education (p. 833).

Fortunately, many victories have been achieved in the courts in declaring that handicapped children may not be totally excluded from the public school systems. In the Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania (1971) case, it was ruled that handicapped children of any kind (physically handicapped, mentally retarded, emotionally disturbed, minimally brain damaged) should not be excluded from an education suited to their needs. In the Mills v. Board of Education of the District of Columbia (1972) case, the principle was accepted by the court that every child, no matter how severe his retardation or handicap, is educable and must be provided for suitably by the public school system. Suitable education in state mental illness and retardation institutions, regardless of chronological age, degree of retardation, or accompanying disabilities or handicaps was ordered by the court in the Wyatt v. Stickney (1972) case (Wald, 1973).
These legislative mandates, in addition to research (Johnson, 1962; Dunn, 1968; Reger, Schroeder, and Uschold, 1968; Christoplos and Renz, 1969; Lilly, 1970, 1971), motivated many school systems to abolish their segregated, special classes and reintegrate (mainstream) their mentally retarded students into regular classes.

Unfortunately, what the courts have not done is directly change or modify teachers and prospective teachers' attitudes toward the handicapped and mentally retarded students.

The results obtained by Meichenbaum, Bowers, and Ross (1969), Beez (1968) and Haskett (1969) indicated that a teacher's expectancies may influence his estimates of pupil performance as well as his behavior toward students, which, in turn, may affect actual student performance (Filler et al, 1975).

It seems apparent that if prospective teachers' (college students) attitude toward the mentally retarded could be measured and modified, a more productive encounter would take place when the prospective teacher eventually meets the special student. This would seem especially true with black prospective teachers attending predominantly black colleges; most of whom tend to seek employment in inner-city ghetto schools (Thompson, 1973).

Finally, a review of the literature indicated no research dealing with the attitudes of blacks (from various regions of this country) toward mental retardation. The inclusion of black samples in attitudinal studies should not only assist in assessing the generalizability of the stated hypotheses, but should also provide data for cross-national comparisons which may be useful in evaluating
research outcomes in the United States as well as being of intrinsic value to the particular geographic areas from which the samples were taken (Morin, 1969).

**Discussion of Terms**

For the purpose of this study, technical as well as operational definitions were considered for the terms: (a) mental retardation, (b) attitude, (c) attitude change, and (d) academic exposure.

**Mental Retardation.** According to Blanton (1975), the first clear definition of mental retardation was given by J.E.D. Esquirol, the great psychiatrist. Blanton revealed Esquirol as saying:

> Idiocy is not a disease, but a condition in which the intellectual faculties are never manifested, or have never been developed sufficiently to enable the idiot to acquire such amount of knowledge as persons of his own age and placed in similar circumstances with himself are capable of receiving (Esquirol, 1845, p. 446).

Since that time, numerous philosophical disciplines have postulated other definitions. Mercer (1971), a sociologist, defined mental retardation "as an achieved social status which some people hold in some social system (p. 191)." According to this view, social organizations develop procedures to sort people who will fit the system from those who will not (Filler, Smith, Vincent-Smith, Bricker and Bricker, 1975). Filler maintained that "this is especially true for members of minority groups whose native cultures and mores may differ somewhat from those of the society in which they currently function (p. 198)."
Various psychologists have also offered definitions. Bijou (1963), a social-learning theorist, has stated, "a retarded individual is one who has a limited repertoire of behavior evolving from interactions of the individual with his environmental contacts which constitute his history (p. 101)."

Perhaps the most adequate definition to date, was established by the American Association on Mental Deficiency (AAMD). In the 1961 AAMD Manual on Terminology and Classification in Mental Retardation, mental retardation is defined as subaverage general intellectual functioning which originated during the developmental period (prior to age sixteen) and is associated with impairment in adaptive behavior (Heber, 1961, p. 5). In 1973, the AAMD revised it to read, significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior, and manifested during the developmental period (Grossman, 1973, p. 11).

Significantly subaverage general intellectual functioning refers to a score greater than two standard deviations below the mean on a standardized instrument. Adaptive behavior refers primarily to the manner in which the individual copes with the natural and social demands of his environment and is reflected in maturation, learning, and social adjustment (Leland and Smith, 1974).

Operational Definition of Mental Retardation. The definition used throughout this study was that established by the AAMD — significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior, and manifested during the developmental period (Grossman, 1973, p. 11).
Attitudes. Freedman, Carlsmith and Sears (1970) considered the major theoretical framework within which attitudes have been studied:

The major approaches to attitude formation and change have been (1) conditioning and reinforcement, (2) incentives and conflict, and (3) cognitive consistency. The conditioning approach sees attitudes as habits, similar to anything else that is learned; principles that apply to other forms of learning also determine the formation of attitudes. The incentive theory is that a person adopts the attitude that maximizes his gains. There are reasons for accepting each side of an issue, and the side for which the reasons are better, from the individual's sometimes selfish point of view, will be adopted. This approach implies a maximization of gains. Finally, the cognitive consistency theory asserts that people tend to seek harmonious relations among their cognitions and behavior. It emphasizes acceptance of ideas that are consistent with previous attitudes. Individuals tend to accept attitudes that fit into their overall cognitive structure. The three approaches are not contradictory or inconsistent. They represent different theoretical orientations and differ primarily in the factors they emphasize when explaining attitude formation and change. (pp. 251-252).

Bem has conceptualized behavior as being a form of attitude. Even though he recognized that often the public, most psychologists, and some educators viewed attitude as a force on behavior as expressed in the popular statement that one must change other men's hearts to change their acts, he contended that an individual relies on some external cues from his own behavior to inform himself of what emotion he is experiencing and what attitudes he holds (Bem, 1970).

Wicker challenged the attitude and behavior change research with the statement that researchers who believe that assessing attitude as an easy way to study overt social behavior should provide
evidence that their verbal measures correspond to relevant behavior (Wicker, 1969). After an extensive review of attitude studies and the relationship of attitude to behavior, he concluded that taken as a whole, these studies suggest that it is considerably more likely that attitudes will be unrelated or only slightly related to overt behavior than that attitudes will be closely related to actions; for product moment correlation coefficients... are rarely above .30 and often are near zero (Wicker, 1969).

Festinger's research in cognitive dissonance theory has concluded that behavior has more force on attitude more often than attitude has on behavior (Horsley, 1974). Festinger maintained that when one engaged in behavior which was inconsistent with his attitude, he would feel conflict (cognitive dissonance) and would be motivated to reduce that inconsistency. As cognitive dissonance research has shown, frequently people convinced themselves that they held the attitude which their behavior reflected, thus reducing their conflict and changing their attitude (Festinger, 1964).

Attitudes have been defined in a number of different ways. Each of the traditional definitions contains a slightly different conception of what an attitude is or emphasizes a different aspect of it (Freedman, Carlsmith, and Sears, 1970).

Thurstone (1928) defined an attitude as "the sum total of a man's inclinations and feelings, prejudices and bias, preconceived notions, ideas, fears, threats, and convictions about any specified topic (p. 531." Later, Thurstone (1946) defined attitudes "as the intensity of positive or negative affect for or against a
psychological object. A psychological object is any symbol, person, phrase, slogan or idea toward which people can differ as regards positive or negative affect (p. 39).

Allport (1935) proposed that "an attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related (p. 810)."

Doob (1947) in contrast, defined an attitude as "an implicit, drive-producing response considered socially significant in the individual's society (p. 138)."

A definition that most social psychologists today seem moderately content with has been offered by Freedman, Carlsmitth and Sears (1970):

A third definition, which to some extent incorporated the other two (Allport, 1935; Doob, 1945), holds that an attitude is an enduring system that includes a cognitive component, a feeling component, and an action tendency. The cognitive component consists of beliefs or opinions about an object or idea; the feeling component is equivalent to Doob's affective component, which is to say that there is some emotional feeling connected with the beliefs; and the beliefs' and the action tendency is what Allport referred to as the readiness to respond in a particular way (pp. 246-247).

Operational Definition of Attitude. Attitude toward mental retardation was operationally defined within the study as the score obtained by subjects on the Mental Retardation Opinion Scale Short Form. As reported by White (1973) the self-report opinionnaire was considered to be a measure of the respondents' true attitude toward mental retardation.
Operational Definition of Attitude Change. Attitude change toward mental retardation was defined within this study as the change in subjects scores on the Mental Retardation Opinion Scale—Short Form from pretest to posttest. As in White's (1973) study, increased scores on the posttest were considered as a measure of positive attitudinal change toward mental retardation as a function of the academic exposure.

Academic Exposure. There is some evidence from experimental research that a lecture is rather effective in changing opinions and attitudes (Wilke, 1934; Knower, 1935, 1936).

In a well controlled study, Sartin (1964) investigated the effectiveness of lectures, field trips, and work experience with retarded children in modifying the expressed attitudes of a group of college students toward the mentally retarded. The results of his study tended to indicate that the students did change in the number of misconceptions which they held concerning the mentally retarded in the direction of added acceptance. The results tended to suggest that the students modified their misconceptions following the presentation of information, and further modified their misconceptions following the observation of retarded children. The results did not permit valid conclusions to be made concerning the effect or value of the experience unit in assisting the students in further modifying their misconceptions.

Other authors have suggested that the audiovisual media are also capable of changing attitudes by inducing a sense of personal contact with what is being seen.
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(Leland and Smith, 1974), while others exhibit prejudice in the form of negative behavior and prejudgments (Gellman, 1959). This has been a problem which has demanded an answer from the world community throughout the course of history, and the answer provided has varied with the different periods of history, largely depending on the cultural orientation of the society toward the mentally retarded (Thomas, 1957).

Although a few researchers have been concerned with black college students' attitude toward mental health (Schein, 1970; Khanton and Carriera, 1972), an extensive review of the attitudinal literature (Chapter 2) indicated no research dealing with substantial samples of black college students' attitude toward mental retardation.

An examination, conducted by this investigator, of course offerings from the 123 predominantly black junior colleges, colleges and universities revealed that less than 3% of the schools provided courses related to the field of mental retardation. This seemed to imply that few black students attending predominantly black schools are being academically exposed to mental retardation subject matter.

The purpose of this study was to measure the attitudes toward mental retardation of substantial samples of black college students; to academically expose (provide a lecture and film) the students to subject matter on mental retardation and to determine if that academic exposure was capable of producing a significantly positive attitude change.

The current national trend of expanding community care and services rather than traditional institutional care reflects the response to growing belief in the potentially positive effects of
more normalized environments on development and behavior (Nirje, 1969; Wolfensberger, 1972).

While the deinstitutionalization movement is commendable and worthy of society's best efforts, there are unresolved implications in the deinstitutionalization process (Vitello, 1972). Difficulties encountered in the movement to place mentally ill people into community facilities in New York suggest that a community-based deinstitutionalization program cannot succeed without public acceptance (Gottlieb and Corman, 1975).

Thus, it would seem that if the mentally retarded are to be successfully integrated into black communities, negativistic attitudes toward mental retardation must be modified and changed.

Another rationale for the present study had to do with the preparation of regular and special education teachers. Meichenbaum, Bowers, and Ross (1969), Recz (1968), and Heksett (1969) indicated that a teacher's expectancies may influence his estimates of pupil performance as well as his behavior toward students, which, in turn, may affect actual student performance (Filler et al, 1975).

It seems apparent that if prospective teachers' (college students) attitude toward the mentally retarded could be measured and modified, a more productive encounter would take place when the prospective teacher eventually meets the special student. This would seem especially true with black prospective teachers attending predominantly black colleges; most of whom tend to seek employment in inner-city ghetto schools (Thomas, 1973).
It was felt that the inclusion of black samples in attitudinal studies should not only assist in assessing the generalizability of the stated hypotheses, but should also be of intrinsic value to the particular geographic areas from which the samples were taken.
CHAPTER II

REVIEW AND DISCUSSION OF RELATED LITERATURE

The research related to the problem of the investigation was considered in three sections which defined the major areas of emphasis: (a) attitudes toward mental retardation; (b) attitude changes toward mental retardation; and (c) the Mental Retardation Opinion Scale—Short Form.

Attitudes Toward Mental Retardation

The concern about attitudes toward mentally retarded individuals is not a newly created research area. In fact, approximately twenty-one years ago social problem researchers such as Mendels sohn (1954) were recommending that a promising area of investigation for researchers dedicated to advancing the livelihood of the mentally retarded would be to determine "first what informational and attitudinal clusters concerning mental deficiency exist among the community's population (p. 507)."

Various reviews of the literature such as those by Morin (1969) and Harrelson (1969) suggest that from 1954 through 1967 a number of research publications have since emerged.

A more recent review of Harth (1973) reveals that these studies vary considerably in population choice, statistical design,
experimental control and sophistication. Due to these differences, most of the studies are not comparable (Morin, 1969).

Following a review procedure similar to that devised by Harth (1973), the present researcher found it more comprehensible and expedient to divide this review section into subject-related population groups. The seven groups were: 1) attitudes of parents of retarded individuals, 2) attitudes of professionals, 3) attitudes of institutional workers, 4) attitudes of employers, 5) attitudes of clergymen, 6) self attitudes of retarded children, and 7) attitudes of students.

Parent Attitudes

The emotional trauma experienced by parents upon discovery that their offspring is mentally retarded arouses anxieties, fears, and guilts not generally associated with the production of an offspring of normal intelligence (Worchel and Worchel, 1961). Such feelings by the parents have caused many workers in the field of mental retardation to believe "the handicapped child's attitudes regarding himself and his handicap are in major part determined by parental reactions toward the child and his disability (Heilman, 1950, p. 556)."

Kaplan (1969) in pleading for research on the family of the retarded, has stated that retardation is not simply a defect that occurs to, or resides in, an individual. Rather it is an event that involves and includes the total family unit and often parts of the larger community as well. Staver (1953) has most strikingly
illustrated this phenomenon in a case where the functional retardation itself was a result of the family dynamics. The literature on attitudes of parents and siblings of the retarded indicates that these attitudes may be quite potent (Harth, 1975).

Numerous studies have been published which used interview techniques in attempting to elicit parental attitudes. One of the earliest studies was conducted by Schonell and Watts. Schonell and Watts (1956) interviewed 50 parents of retarded children residing in Brisbane, Australia. Most of the subjects were mothers and reported favorable attitudes displayed by the father, siblings, relatives, and outsiders. However, in seven cases sibling attitudes were unfavorable, in nine cases those of relatives were unfavorable, and the attitudes of fathers were unfavorable in eight cases. Five parents complained of unfavorable attitudes and treatment of the child by persons outside the family unit. In a follow-up survey, Schonell and Burke (1959) reported some positive changes in attitudes toward retardation in the same sample after the children had been established in a day school for special training.

Following eight weekly group therapy sessions with parents of mongoloid children, Gordon and Ullman (1956) reported their impressions. These researchers found a great deal of uncertainty among the parents despite a history of medical advice. They felt that the parents overestimated the importance of their children's IQ scores to the neglect of other factors that determine social adjustment. Gordon and Ullman described the parents as being somewhat burdened with guilt and defensiveness and concluded that overprotection
and inability to make realistic demands of the child were the most commonly expressed neurotic attitudes.

Caldwell and Guze (1960) utilized psychiatric interviews, as well as three attitude scales, to investigate adjustment and attitudes of mothers and siblings of retarded persons who were institutionalized as compared to retarded persons living at home. Although they had eight dependent variables — a relatively large number, no significant differences were found between the two groups.

Perhaps the most controlled study using the interview technique to assess parental attitudes was conducted by Stoddard (Morín, 1969). Stoddard (1963) randomly sampled and interviewed parents of retarded children and correlated elicited attitudes with several objective measures of the child's attitudes with several objective measures of the child's intelligence and achievement. She found no demonstrable relationship between parental attitudes and the achievement of their severely retarded children. Stoddard did, however, qualify her conclusions by stating that the lack of any relationship was likely a function of inadequate instruments.

In an exploratory study using a focused interview format and descriptive analysis, Ehlers (1964) attempted to relate a number of variables to parental attitudes toward services offered their retarded children by a community agency. Only the social class factor seemed to be significantly related. That is, lower class parents were more willing to avail themselves to community services than were middle class parents, which according to Ehlers, may or may not be a reflection of more positive attitudes as opposed to accessibility to private resources.
Olshanky and Schonfield (1965) interviewed 105 families—mostly parents—of graduates of special classes for the mentally retarded and found that 33⅓% of the families said they thought the graduate was normal and 30% of the families refused to classify the graduate either way. These investigators suggested that this did not involve a denial of reality since those who were rated normal could be better classified as culturally deprived. The graduates perceived as normal or who were not rated were judged to be significantly better adjusted at home, socially and vocationally, and differed on several demographic variables from those judged mentally retarded.

Using information from hospital records as well as interviews, Mercer (1966) indirectly related the attitudes toward institutionalization in families of 76 mentally retarded individuals released from and 76 matched mentally retarded individuals still hospitalized in an institution. She found that the retarded persons who were released from the institution and reaccepted by their families were more frequently diagnosed as familial or undifferentiated and showed a non-significant tendency to have fewer physical handicaps. While the patterns of pre-institutional crises were similar for the two groups, it was the additional physical care problem which differentiated the groups.

The interviewers rated parental responses regarding their male and female retarded children in a study administered by Levine (1966). On a social competency scale they found significantly more agreement among the parents of a child when that child was a
female. The children were all trainable retarded individuals and
the differences were attributed to the fathers’ tendency to devalue
the mentally retarded male more than the mentally retarded female.

Parents of 180 young educable retarded children were inter­
viewed by Meyerowitz (1967). All the children had been randomly
assigned to regular and special classes upon entering school.
Meyerowitz found that the parent of children placed in special
classes manifested greater awareness of retardation even though 55%
of this group was judged unaware of their child’s retardation and
more than 25% of these parents whose children had received special
class training for two years persisted in responding that the child
was better than other children in academic skills. Parents in this
group also showed a consistent, but statistically less than signifi­
cant tendency to derogate and devalue their children more than
parents whose children were placed in regular classes.

Some researchers interested in parental attitudes have
used other instruments somewhat more objective than interviews.
For example Fredericks (1957) compared the parent attitudes expressed
by mothers of two handicapped groups with those expressed by a control
group of mothers of nonhandicapped children. He administered the
University of Southern California Parent Attitude Survey to forty
mothers of mentally retarded children, forty mothers of orthopedically
handicapped children, and forty mothers of non-handicapped mothers.
The results obtained on the total scale indicate that mothers of
retarded children express significantly more undesirable attitudes
than do mothers of crippled and mothers of nonhandicapped children.
Thurston (1959) reported on the development of a sentence completion instrument to assess parental attitudes toward their handicapped children and later (Thurston, 1960) described results of a study involving the attitudes and emotional reactions of parents of institutionalized cerebral palsied, retarded patients. He concluded that as a group the parents appeared hostile, suspicious, and generally uneasy and went through a long period of mourning.

Using a variety of observational and rating techniques on a sample of 10 retarded children and their parents, Peck and Stephens (1960) attempted to assess the effect of parental attitudes upon their children. Their findings indicated the importance of the father's attitude in the home: a .85 correlation was found between the father's acceptance or rejection of his mentally retarded child and the amount of acceptance or rejection observed in the home situation. Correlation involving mothers was only .09 and was not significant.

Worchel and Worchel (1961) had a group of middle class parents of retarded children rate these children on 38 traits of adjustment and values. Ratings were also obtained from this group for their own normal children, other children, and their conception of an ideal child. It was found that the retarded child was significantly less favorable on personality traits than the normal child.

Barber (1965) undertook a social-psychological study to determine the influences of (1) socioeconomic status, (2) sex of the child, and (3) degree of mental retardation on the attitudes of mothers of 107 mentally retarded Caucasian children. All of the
mothers completed the Parent Attitude Research Instrument (PARI) and answered a "census type" data questionnaire. Barber found that considering the influence of the degree of retardation of the child, mothers of educable mentally retarded children were (1) more defensive of their position, (2) more rejecting of the child, (3) more interested in their own dominance, (4) more prone to blame their husbands, and (5) more apt to foster dependence of their children than were mothers of severely mentally retarded children. It appeared that for the socialization processes measured in this investigation, lower status mothers of mentally retarded children were more defensive, aggressive, domineering, authoritarian, and rejecting of their children than was true of the upper status mothers.

In order to maintain their position of dominance and authority, mothers fostered their children's dependency. The stigma of having a mentally retarded child influenced lower status mothers more than higher status mothers. The results of this study suggested that the attitudes of mothers of mentally retarded children are not influenced by the sex of the children but are influenced by the intellectual capacity and the propensity of response.

Costello (1965) attempted to identify the attitudes of parents of mentally retarded children toward the counseling they received which was to (1) provide help in understanding the child's diagnosis, (2) provide support in handling emotional and other problems, (3) provide assistance in planning for the child. She found that a slight relationship existed between the attitudes of parents toward counseling and their knowledge of mental retardation;
no significant difference at the 5 percent level in attitudes toward counseling between 1) mother and fathers, 2) those who have known of the handicap six years or more and those who have known five years or less, 3) those who graduated from high school and those who did not. Significant differences also did not exist in the attitudes toward counseling according to the socio-economic level of the parent.

Barclay and Vaught (1964) used a rating scale with a group of mothers of non-institutionalized cerebral palsied children and found that the mothers of cerebral palsied children whose intellectual potential would classify them as mentally retarded typically over-estimated their children's potential for future development.

Blumberg (1964) compared the conceptions and attitudes that parents of educable mentally retarded children, parents of trainable mentally retarded children, and parents of children in regular classes have concerning the slow learner, the educable mentally retarded, the trainable mentally retarded, and their own child by means of the Wang-Osgood-Gough Profiles. He concluded that the parents of educable mentally retarded children, parents of trainable mentally retarded children, rated their children as possessing more adequate personal and social skills than the non-institutionalized mentally retarded population in general. The parents of the educable mentally retarded children rated the non-institutionalized mentally retarded more favorable as to the capacity to perform the personal and social skills than did the parents of trainable mentally retarded children and parents of children in regular classes.
Using a modified version of Thurstone Sentence Completion Form, Condell (1966) investigated the attitudes of parents of mentally retarded children in rural Minnesota toward mental retardation and toward an agency and its staff dealing with mentally retarded children. Less than 50% of the parents contacted completed the form and the author concluded that parental attitudes were not uniform. While the parents sought professional help there was a question of its acceptance.

In what is considered to be a well designed study (Morin, 1969), Kenny (1967) employed measures of authoritarianism and ego development with four groups of 10 mothers who were matched on a total of 11 variables: (a) mothers who had a retarded, adjusted child, (b) mothers who had a retarded, maladjusted child, (c) mothers with a normal IQ adjusted child, and (d) mothers with a normal IQ, maladjusted child. It was found that mothers of adjusted children, regardless of IQ, were less authoritarian in child-rearing attitudes than mothers of maladjusted children. The hypothesis that mothers of mentally retarded children would be more authoritarian than mothers of normals was not supported. Level of the mothers' ego development was related to adjustment of the child with the retarded group only.

Klein (1969) investigated whether there was a quantitative measurable change in attitude or personality patterns of mothers participating in a parent-cooperative pre-school for mentally retarded children. In particular, an attempt was made to determine if change could be detected in general personality patterns and specific attitudes of mothers toward child-rearing, normal children and their
own retarded child as a result of their being involved in a cooperative nursery school. Most of the evidence supported the null hypothesis that there was no difference in change of attitudes or personality patterns between mothers of pre-school mentally retarded children who are actively involved in classroom activities (coop group) and mothers who are not (non-coop group).

Barth (1973) postulated that another variable correlated with parental attitude is parental religion. For example, Zuk, Miller, Barkman, and Kling (1961) reported on the relationship between religious belief and maternal acceptance of retarded children; a low but positive correlation was found between these two variables. Mothers who rated themselves more intense in religious practice tended to express attitudes that were more accepting of retarded children. It was noted that the most intensely religious parents were Catholic.

Attitude of Professionals

Within this particular group, the attitudes of physicians and teachers represented the most numerous studies that appeared in the literature. Surprisingly, attitudes of other professional groups—psychologist, social workers, nurses, etc.—appear to have received considerably less attention. The few studies that have dealt with these professionals were more appropriately discussed in the next review section.
As has been pointed out by Harth (1973):

physicians are often the first professionals to become aware that a child is mentally retarded. Since they also often become the first professionals to help parents adjust to the birth as well as to help them make future plans, their attitudes are crucial. This is particularly true in the instance of helping parents make a decision about institutionalization or home care (p. 151).

Two child health specialists have aimed their research efforts at this issue. Olshansky and Sternfield (1962) investigated whether or not pediatricians trained before the recent public concern about mental retardation would demonstrate modern attitudes. They conducted personal interviews with a non-random sample of 50 pediatricians considered to be leaders in their field and residing in the Boston, Massachusetts area. The results indicated that few of the pediatricians had any well-developed perspective to guide their interactions with parents of retarded children. Within the frameworks of this study relatively little evidence was found to support the views that pediatricians favor early institutionalization. Nevertheless, few pediatricians considered the decision to institutionalize as belonging to the parents.

In a one-year follow-up study, the attitudes toward institutionalization of pediatricians still in training was studied by Olshansky and Kettel (1963). The major purpose of the study was to determine to what extent young physicians accepted the new views (Bryant and Hirsheberg, 1961) which Olshansky and Kettel felt were gaining recognition in the field of mental retardation. By new views they meant that separation of mother and retarded child at birth is contraindicated except in special cases, that home life is generally
preferable to institutional life, that the decision to institutionalize should be determined case by case, and ultimately the decision should be made by the parents. The results of the interviews with these 40 young pediatricians indicated that they tended to hold the newer views of preferring homecare over institutionalization despite rather limited knowledge, training and interest in the area of mental retardation. Contrary to the new views, few perceived the parents as the decision-makers in determining the institutionalization of a child. In a more recent study, Fisher, Koch, Sands and Bills (1968) made very similar findings. Using senior medical students, they found that home care was preferred over institutionalization. A general lack of knowledge and interest in mental retardation was also found.

Teachers probably spend more time with retarded children than do most other professionals (Narth, 1973) and perhaps for this reason, many researchers have attempted to determine their attitudes. Hamerlynck (1965) tested the assumption that psychological test can predict the effectiveness of first year teachers of retarded children. A battery of three tests was selected on the basis of agreement with a theoretical model of a good teacher of retarded children. The tests used were the Miller Analogies Test, The Gowan Teacher Prognosis Scale of the MMPI, and Attitude Toward Mentally Retarded Children Scale. In conclusion, the study indicated that the tests selected did not predict rated effectiveness. The test did indicate that the average teacher of retarded children has: (1) the same aptitude for graduate study as others in the profession, (2) is less warm and...
friendly, and (5) has a slightly positive attitude toward retarded children at the start of her training. This attitude was significantly higher than the attitudes of non-specialists in the profession.

The attitudes of prospective teachers toward exceptional children was studied by Kingsley (1967). When he asked these students to rank the exceptional child they would most and least like to teach, they indicated the most preferred to be the gifted and the least preferred to be the severely retarded. It was especially interesting to note that they felt the severely retarded need to be institutionalized as opposed to being provided educational services. In a very similar study, Bergan and Smith (1966) investigated the effects of knowledge of socio-economic status and sex on prospective teachers' judgement of the competence and social acceptability of retarded children. They found that retarded children of lower socio-economic status were regarded less favorably than retarded children of high socio-economic status.

After examining the attitudes of elementary special and regular class teachers, Fine (1967) expressed concern over the relationship between their attitudes and behavior. According to his findings, not only do special class teachers place greater emphasis on personal and social adjustment than do regular class teachers, but they also make less demands upon lower ability students to try harder. Similar results with secondary level teachers have been reported by Schmidt and Nelson (1969).

One of the most recent studies concerned with the attitudes of teachers has been performed by Washington. Washington (1975)
investigated the behavioral interaction of teachers with educable mentally retarded (EMR) and with nonretarded children who were in integrated classes. The relationship of teacher attitude and teacher knowledge to teacher behavior in the classroom was also examined. The results were interpreted to indicate that the behavioral treatment accorded to EMR students was not significantly different from that which was accorded to the non-EMR children in the classroom. The results also indicated that the expressed attitudes of the teachers toward exceptionality were not significantly related to their behavioral interactions with EMR and non-EMR youngsters. Finally, no significant relationship was found to exist between teacher knowledge of information concerning exceptionality and their interaction with EMRs and non-EMRs.

The attitudes of educational superintendents has also received some attention. Stewart (1972) conducted a survey of attitudes of local superintendents of education in the State of Alabama toward educational programs for gifted children and youth. A questionnaire was mailed to the 126 local Alabama public school superintendents of education. The most significant finding was that Alabama superintendents had positive attitudes toward the initiation, and expansion of programs for gifted children.

Fanning (1974) conducted a study to analyze the attitudes of educators in Arizona toward the educable mentally handicapped (EMH) and their integration into regular education classes. Fanning had two hundred educators in Arizona complete a personal data sheet, an attitude assessment instrument, and a knowledge inventory on
mental handicap. The educators were randomly selected to include urban and rural: special class teachers, regular class teachers, and administrators. His results indicated that: 1) Special class teachers, when compared to regular class teachers, were significantly more willing to remove mentally retarded persons from the mainstream of society; less willing to attribute a major cause of mental handicap to cultural impoverishment; and more authoritarian. 2) Regular class teachers from urban districts when compared to regular class teachers from rural districts were significantly: less willing to remove mentally retarded individuals from the mainstream of society; more favorable in their attitude toward Arizona's mandatory legislation, and the integration of EMH children into regular classes. 3) As a teacher's knowledge about mental handicap increased: the teacher became more willing to remove mentally retarded children from the mainstream of society; more authoritarian; and less willing to attribute a major cause of mental handicap to cultural impoverishment. 4) High knowledge teachers were more willing to remove mentally retarded children from the mainstream of society and less willing to attribute a major cause of mental handicap to cultural impoverishment than were low knowledge teachers.

In ending this particular 'groups' (professionals' attitudes) review, it should be noted that a mass cloud of confusion exist about their attitudes toward the severely retarded. The concern here is with the assumption that the severely retarded appear to be the least preferred type of exceptional child. This tends to give the impression that there is something about severely retarded children that makes
them distasteful to professionals. In examining the attitudes of a variety of professionals, Warren and Turner (1966) found that their subjects least preferred working with the severely retarded and their university program emphasized this area of exceptionality least.

In spite of these findings, there is some suggestion that the status of the severely retarded may be more a function of lack of familiarity and knowledge than an actual distaste for these people (Harth, 1973, p. 153).

Institutional Employees' Attitudes

Residential care has been in the past, is today, and will remain, an essential and major part of services for the mentally retarded (Tizard, 1970). There are persons in the world whose occupational task is to maintain surveillance over and provide this essential care. Oftentimes, such employees must accomplish this task while operating under the purview of an institutional order which demands as a matter of high moral import and as a condition of continued employment that the essentially human character of these retarded persons be honored at all times (MacAndeew, 1973). Nevertheless, employees have their own impressions, beliefs, opinions and attitudes toward the mentally retarded — bolstered as it is with institutional demands.

Several researchers have concerned themselves with the attitudes of these employees. Babow and Johnson (1969) constructed a questionnaire to study the attitudes of treatment staff at a state mental hospital which established a mental retardation unit. The questionnaire included attitudes toward mental retardation, the F scale on
authoritarianism: Srole's Anomia Scale, and the Strauss – Schatzman Scales of Psychiatric Treatment. Of 1170 questionnaires distributed, 760 usable ones were returned (513 psychiatric technicians, 127 nurses, 50 physicians, 28 social workers, 14 rehabilitation therapists, 10 psychologists, and 18 of unreported occupations). An analysis of respondents' attitude profiles yielded 5 clusters. Cluster One employees were highly motivated for change and were in position to do something about it. Cluster Two employees had a negative orientation to retardation and sociotherapeutic orientation. Ninety-one percent of these people were involved in direct patient care. The largest cluster of people, Cluster Three, were intermediate in most measures. Cluster Four respondents were intermediate on mental retardation orientation but rather high on authoritarianism. Cluster Five employees were contradictory and inconsistent in their response. Perhaps the most significant implication of this study was that people in power were highly motivated to make the institution more humanistic. The problem seems to have been that many of the employees in direct patient care held opposing attitudes.

Differences in attitudes among institutional employees have been similarly reported by Bazart and Lally (1969). Their study dealt with comparisons between occupational groups. They found that work supervisors tended to view residents as significantly better than either educators and/or activity employees. Park (1975) has suggested here that institutional variables may account for these differences. The performance requirements in school are rather
different from those at work. Although the retarded person may perform adequately on the job he probably does not do as well in school.

Maddock and Kenny (1972) studied management practices as it related to staff and resident attitudes. They employed standard attitude measurement techniques in 2 separate child-care institutions in order to extend Gibb's theory of defensive management to residential child-care institutions. Their findings indicated that in institutions where staff engage in defensive and manipulative practices they tend to generate more resident hostility and defensiveness. More democratically and participatively managed institutions evoked less distrust and defensiveness.

Audette (1972) investigated differences between the attitude and expectancies of aide level personnel toward mentally retarded persons as a function of the size-of-setting and staff-to-resident ratio in institutions for the mentally retarded. Subjects (N = 60) were randomly selected from a population of first shift, female aides, ten each from low-level, middle-level and high-level buildings at each institution. Audette found that aides from the small unit/low staff institution had more positive attitudes and higher expectancies for mentally retarded persons than aides from the large unit/high staff institution. It was also found that aides from buildings with higher functioning residents within each institution had more positive attitudes and higher expectancies than aides from buildings with lower functioning residents.
Thus, it would seem from these few studies that there are more than one set of attitudes toward the retarded operating in institutions. More importantly, there are sometimes competing attitudes that could possibly interfere with the running of the institution (Harth, 1975).

**Employer Attitudes**

Although numerous writers (Allan, 1962; Blatt, 1961; DiMichael, 1975; Salkind, 1962) have postulated that the major deterrent to successful employment of the retarded is the general negative attitude of employers, few systematic studies have appeared in the recent literature that's related to employer attitudes.

In the immediate area of a training and research center on retardation, Cohen (1963) related the scores of 177 employers. The scores were taken from a scale designed to measure attitudes toward hiring the retarded, the amount of education of the employer, the amount of contact with mentally retarded individuals, and a check list measuring knowledge about retardation. Cohen found a significant negative relationship between attitudes and reported educational level. This was in spite of a significant positive relationship found between educational level and a realistic conception of retardation. The contact variable was not significant. Cohen concluded that employer attitudes in his study are relatively independent of knowledge.

In a study which would tend to question those findings of Cohen, Harlidge (1965) reported no relationship between the educational level of 120 employers and their receptivity toward hiring the retarded.
However, he did find that the size and type of industry or business was significant; with large manufacturing industries being the most receptive and service industries the least.

The results of a study which completely contradicts Cohen's findings while substantially agreeing with those of Hartlage has been cited by Phelps. Phelps (1965) employed a 54 item questionnaire containing both factual and opinion statements and compared the responses of 152 service employers. In contrast to Cohen, Phelps found a positive relationship between educational level of personnel managers and attitude response toward the mentally retarded. As did Hartlage, Phelps also found a positive relationship between the size of the organization and attitudes. A positive relationship was also found between attitudes and length of time of employment.

Differences were reported between the types of service industries, with hospital and motel personnel managers being more favorable to hiring the mentally retarded than hotel, laundry-dry cleaner, restaurant, and nursing home personnel managers.

Clergyman Attitudes

One of the most influential groups in America is that of the clergy. Knowledge of this fact has perhaps prompted a few researchers to study clergymen's attitudes toward the mentally retarded.

Heaver (1967) had a total of 407 clergymen complete and return by mail a packet of research instruments consisting of the following: the Kerlinger Education Attitude Scale; the Gordon Survey of Interpersonal Values; a Personal Questionnaire.
to measure contact with education, demographic variables, and orientation toward change; an Attitude Toward Mental Retardation Scale; and a Personal Questionnaire: MR, a set of items to measure the variables of contact with mental retardation. To secure the sample, 5,113 positions of professional, congregation leadership had been identified throughout the state. He reported that clergymen with more frequent contact with mentally retarded persons tended to feel more strongly about their attitudes toward mental retardation, regardless of whether the attitudes were favorable or unfavorable. Clergymen who placed more value on doing things for other people and being generous tended to show more favorable attitudes toward mental retardation. Age and amount of education of respondents were found to be significant, relevant variables in the relationship between benevolence values and attitudes toward mental retardation.

In a very similar study, Peterson (1968) determined if certain Colorado clergymen's attitudes toward the mentally retarded were related to their knowledge of mental retardation. Two hundred and sixty-two clergymen were administered an inventory-answer sheet; a section dealing with attitudes toward the mentally retarded and a section dealing with knowledge of mental retardation. The results tended to indicate that the clergyman who had at least some contact with the mentally retarded, who had at least four or more years of college and a degree, one to five years of ministerial experience and training or education in pastoral counseling would have a more positive attitude toward the mentally retarded.
Self Attitudes

The study of a mentally retarded person's self-concept and ideal-self has been, for the most part, a neglected research area and represents an important conceptual aspect in personality theory (McAfee and Cleland, 1965). A few studies have appeared which were concerned with self attitudes among the retarded. For example, Guthrie, Butler, and Gorlov (1961), in attempting to develop a system of personality assessment based on the institutionalized mentally retarded female's conception of herself and her world, found a high positive correlation between how the female saw herself and how she believed others perceived her.

In a later study, Guthrie, Butler, Gorlov and White (1964), again using institutionalized mentally retarded females, found that self attitudes were often defensive and designed more to protect the self from painful rejection than to gain approval through achievement. With a very similar sample, Kniss, Butler, Gorlov and Guthrie (1962) found no relationship between ideal self attitudes, as determined by age, IQ, and length of institutionalization. McAfee and Cleland (1955) similarly found no difference between self-ideal self discrepancy between adjusted and unadjusted educable males.

When compared with a matched sample of retarded achievers, McCoy (1963) found that a sample of educable mentally retarded underachievers had a significantly lower degree of realistic self confidence as well as a lower and less realistic level of aspiration. There was also a nonsignificant trend for achievers to have a higher
degree of perceived parental acceptance and intrinsic as opposed to extrinsic self valuation.

In a rather well designed correlational-type study, Snyder (1966) correlated academic achievement with measures of personality, self attitudes, and anxiety in a sample of midly retarded children obtained from a variety of settings and found significant differences in the expected direction between high and low achievers on all three measures. It was noted by Snyder that even the high achievers generally showed poorer adjustment than normal IQ children.

Meyerowitz (1962) compared groups of educable first grade mentally retarded students who had been randomly assigned to regular and special classes to a normal criterion group on an index of self derogation specially developed for his study. He found that the retarded as a group were more derogatory of themselves than the normal children. Contrary to expectation, he also found that the retarded students assigned to regular classes were less derogatory of themselves than those assigned to special classes; perhaps because their age had not yet permitted significant failure experiences thought to result from regular class placement (Morin, 1969). It would appear that, as Bozart and Daly (1969) reported, attitudes of institutional employees are somewhat dependent upon the situation in which they observe the child, or are the self attitudes of retarded children a function of the activity in which they find themselves (Hartib, 1975).
To study group structure in a sample of classrooms for the retarded, Loing and Chazan (1966) used a sociometric technique. The researchers concluded that their results didn't agree with the results of a classical study by Morens (1934) who found that the organization of groups in which mentally retarded children participated revealed numerous unreciprocated choices, a low number of mutual pairs, and many isolates.

A self attitude study was reported by Knight (1968). She compared black retarded boys in special classes, black retarded boys in regular classes, and white retarded boys in special classes. The notion of self derogation seem to have been supported among black retarded boys in special classes. Unlike most of the other studies reported, Knight found that her retarded subjects tended to have realistic self concepts.

**Student Attitudes**

Over an extended amount of years, research has continually suggested that a child who experiences rejection will have a greater chance of developing various behavioral disorders (Clothier, 1944). It has been perhaps with this notion in mind that other investigators have attempted to determine elementary, high school, and college students attitudes toward mentally retarded individuals.

For example, a significant relationship between motor ability and peer acceptance in a group of trainable and educable retarded children attending a day school was reported by Smith and Hurst (1961). Clark (1964a) discussed a rather similar finding using a large sample of normal fifth grade boys and girls and their attitude toward a
special group of educable retarded students (EMR) in the same school. Utilizing a content analysis and interview technique, Clark found the retarded students were at times evaluated unfavorably; the normals reacted more to their athletic abilities and appearance than to their intellectual or academic ability.

In a later study, Clark (1964b) found that normal children in classes adjacent to a class for mentally retarded did not identify photographs of retarded persons with their special class status in an elementary school. An attempt was made to ascertain perceptions of the special class more directly, and it was found that only approximately 11% of the children's remarks about the class were derogatory. Over 90% of the children described special class members in terms of deviancy but only 5.4% correctly identified this deviancy as mental retardation.

Gottlieb (1974) investigated the influence of the label—mental retardation—on the attitudes of forty-eight fourth grade pupils. He interpreted his data as indicating that labels do not adversely influence the attitudes of peers toward labeled children.

A study of seemingly contradiction is that of Johnson and Ferreira (1958) who reported that interviews with retarded students in special classes revealed that 70% had been called derogatory names because of their special class status. Similarly, Jones (1972) reported that high-school-aged special-class students stated generally negative attitudes regarding their special-class placement.

Gottlieb (1969) divided 224 Norwegian schoolchildren, in age groups from 8-16 years into high and low adjustment groups on the
basis of discrepancy scores between their ideal-self and self-scores on a semantic differential. It was found that the high adjustment group reported more favorable attitudes toward the retarded than the low adjustment group, and that attitudes remained relatively stable with increased age.

In a well designed study using 240 high school seniors, Joffe (1966) demonstrated the importance of stereotypes which become attached to the concept of mental retardation. He employed two semantic differential scales: (a) one tapping the Evaluative factor and the second (b) measuring a combination of Activity, Potency, and an Independent – Suggestible factor. In addition, an (c) adjective check list, (d) the Social Distance Scale, (e) a vocabulary test, and (f) demographic data (amount of contact with the retarded).

Badt (1957) reported results of a study in which the attitudes of university students in education and other curricula were obtained toward exceptional children as a group as well as toward separate categories of exceptional children. Analysis was descriptive only; but, generally, the attitudes of the students seemed to be most unfavorable to mentally retarded and emotionally disturbed children.

Kingsley (1967) reported the results of a survey of elementary and secondary education majors to determine their prevailing attitudes toward exceptional children and programs in special education. It was noted by Kingsley that these students had an adequate understanding of the general purpose of special education. When these students were asked to rank the exceptional child they would most and least like to teach, they indicated the most preferred
to be the gifted and the least preferred to be the severely retarded. Further, they felt that the severely retarded needed to be institutionalized as opposed to being provided educational services.

**Attitude Change Toward Mental Retardation**

Only a few studies have appeared in the literature which purport to be concerned with changes in attitude toward mental retardation (Morin, 1969). However, the research that has appeared has utilized a variety of conceptual approaches and considered different cause and effect relationships (White, 1973).

Strauch (1968) compared the expressed attitudes of normal adolescents who had considerable school contact with EMR pupils with normal adolescents who had only limited school contact with the EMR. Six junior high schools in New York state having certified special classes for EMR pupils were utilized in this study. The normal and EMR groups that participated in certain classes were called integrated situations, classes of normal and EMR groups which had only limited contact were referred to as segregated situations. There were 59 EMR subjects from the segregated schools and 62 normal subjects from the integrated schools. It was found that the normal pupils held negative attitudes toward the concepts - Mentally Retarded and Special Class pupils. It was concluded that the expressed attitudes of normal adolescents toward the EMR did not appear to be different as a result of contact.

In a rather similar study, Peterson (1974) has reported findings somewhat different. To determine the possible effects of
contact, IQ, chronological age, and the educational level of the respondents' parents on attitudes toward their EMR peers. Peterson administered two attitude scales to four hundred and twenty non-retarded children of both sexes attending grades five through eight. Subjects who had contact with EMR peers reported more favorable attitudes. Of subjects having contact, no differences were observed among high and low IQ groups.

Alcorn (1965) examined the relationships between freshmen college students and seniors who had course-work in special education, and seniors who had not had course-work in special education. He concluded that college does improve the attitudes toward and knowledge of mental retardation, especially if students have course-work in special education. He also found that as freshmen, male students could be expected to be less accepting in attitudes toward mental retardation than female students, as seniors, attitudinal differences can be expected to be less evident. Sallin (1961) reported similar findings.

Going perhaps a step further, Hart (1971) also compared the attitudes of special education students and regular education students towards mental retardation. Using a scale that measured five dimensions of attitudes, he found that special education students were more willing to decrease social distance between themselves and the mentally retarded, and more positive about the private rights of the mentally retarded. Overall, special education students had more favorable attitudes toward mental retardation than did general education students.
Whereas, Alcorn (1965) and later Harth (1971) found that attitudes toward retarded individuals were significantly improved after there had been a significant increase in knowledge about retarded persons. Semmel (1959), Mahoney and Pangrac (1960), and Greenbaum and Wang (1965) found, in the contrary, that greater amounts of knowledge or education about retarded persons had a small, if any, effect on changing attitudes toward them in a more positive direction. It has been noted by Prothers and Ehlers (1974) that "an extenuating aspect of these studies was that there was no indication of a significant difference in knowledge of retarded persons between experimental and control groups" (p. 83).

In what seemed to be a very well designed study, Prothers and Ehlers (1974) attempted to lend further support to the proposition that knowledge about retarded persons led to a significant improvement in attitudes toward mental retardation. Using 46 undergraduate and graduate social-work students as subjects, the researchers gave the students various units of instruction in mental retardation presented in programmed text format. This study failed to substantiate that a significant increase in knowledge concerning retarded persons would lead to a significant increase in positive attitude toward the retarded person. It was concluded that a change in social work students' attitudes toward retarded persons would necessitate more than a significant increase in knowledge about those individuals.

In attempting to change attitudes, Quay, Bartlett, Wrightman and Galton (1961) used three methods (lecture, discussion, booklet)
of introducing information to attendants in institutions for the retarded. The authors reported the lecture group to be the only group to produce positive changes in attitude. The least change was found within the discussion group.

Begab (1969) compared the potency of social contact to that of informational procedures used in producing attitude change. The results of this study indicated that knowledge through direct contact with mentally retarded individuals has greater impact on attitude change than knowledge alone. Harth (1975) viewed these results as continued support for the notion that the more direct the procedure, the greater the probability for producing change.

Four studies, Cleland and Chambers (1959), Cleland and Cochran (1961), Kimbrell and Luckey (1964), and Sellin and Malchauhey (1966) have been concerned with the effects of institutional open houses or guided tours on attitudes toward mentally retarded persons. Although these studies employed the same basic methodology, in general, the results of these studies have been contradictory and inconclusive (Morin, 1969).

More recently in a related study, Lethue, Christensen, and Wilkerson (1975) examined the effects of an institutional tour on college students attitudes toward the mentally retarded child, mentally retarded adult, state school for mentally retarded persons, and ward attendant at a state school for mentally retarded persons. Results indicated that more positive attitudes toward mentally retardation were created by the institutional tour. Subjects who initially held more negative attitudes change more in the positive direction.
than did subjects whose initial attitude was positive. The authors concluded that such a finding was expected because the negative attitude group had more room for change.

Warren, Turner, and Brody (1964) evaluated the effectiveness of a one-day guided tour combined with lecture and discussion in effecting students' preference for working with individuals in several areas of exceptionality. The reported preferences of the students concerning work in the area of mental retardation did not increase after the lecture, discussion, and tour. The investigators found that in some cases, attitudes became more negative and may have been related to "the students' preconceptions, the reinforcement of existing negative attitudes and the short duration of the institution visit (p. 255)."

Appel, Williams, and Fishell (1964) examined attitude changes of 21 mothers of retarded children two years after group counseling. Scores on a sentence completion form were compared at that time with precounseling scores. The investigators concluded that parents became concerned less with their own feelings and more with the needs of their retarded children; however, they found it just as difficult to accept the disability as before.

Research on The Mental Retardation Opinion Scale

To provide a measure of attitude and attitude change, an abbreviated forty item version of the Mental Retardation Opinion Scale (MHOS) was used. This version, developed by White (1973) and referred to as the Mental Retardation Opinion Scale - Short Form (MHOS - SF), is succinctly discussed in Chapter III.
The original scale items were derived both from items compiled by Allen and Foshee (1966) and from the literature - Winthrop and Taylor in 1957; Mahoney and Pangrac in 1960; Southern Regional Education Board; and Numally in 1961. The one hundred items retained for the MRUS scale were those with apparent stability and those which differentiated most significantly between students of different educational and experiential levels (White, 1973).

Allen, Foshee, and others used the MRUS in the extensive three year study of Summer Work Experience and Training (SWEAT) programs in the field of mental retardation. During the years of 1966, 1967, and 1968 this study was primarily concerned with the evaluation of change, as measured by the MRUS, in expressed attitudes toward mental retardation which resulted from the work-experience programs. The statistical data within the study was derived from a sample of SWEAT students at different educational levels (N = 651) and a contrast group (N = 378) of comparable educational levels who were involved in the SWEAT work experience. A content validity analysis and item analysis were conducted, utilizing Chi square, and resulted in significant differences for the one hundred items when compared with educational levels of subjects.

Additional statistical data, regarding reliability and validity, were developed from a sample group (N = 135) aides working in mental retardation facilities. The authors also provided normative data on the responses to the one hundred item opinion scale by a group (N = 47) of professional workers in the field of mental retardation.
White (1973), using the MRSD-SF, conducted a study to consider (1) the relationship between the level of accepting attitude toward mental retardation and related education and experience and (2) an evaluation of the efficacy of two types of direct-contact experiences, a student teaching practicum and a short-term paid work experience, in affecting change in the level of accepting attitudes toward mental retardation. Sample subjects (N = 316) for the attitude study included representative clusters of personnel who were employed in rehabilitation and education programs in the field of mental retardation. Sample subjects for the attitude change study (N = 165) included students, who had completed their junior year of undergraduate study as special education majors, in three different college programs. White found that (1) persons with more related education possess a greater mean level of accepting attitude toward mental retardation; (2) persons with more related experience had a lower mean level of accepting attitude toward mental retardation; (3) persons with more combined related education and related experience possessed a greater mean level of accepting attitude toward mental retardation; (4) persons who were younger (under thirty-five) possessed a greater mean level of accepting attitude than those who were older (thirty-five and over); (5) there was a significant positive increase in the level of accepting attitude toward mental retardation of special education students after their completion of a twelve week work experience in the field of mental retardation; (6) there was no significant change in the level of
accepting attitude toward mental retardation of special education students after their completion of a student teaching practicum in the field of mental retardation.

White maintained that the use of MROS-SF, to provide a measure of attitudinal level toward mental retardation was in general agreement with the findings of Guttman (1950; Hovland, Janis, and Kelley (1953); and McGuire (1968). Guttman (1950) stated that "If we look at research carried out on attitudes ... we find it is based largely on verbal behavior (p. 48)." He further suggested that it was difficult to attempt a definition of opinion "as a distinct concept" and that it was preferable to "use the word (opinion) interchangeably with 'attitude' when dealing with verbal behavior (p. 48)." Hovland, Janis, and Kelley defined opinion as the "verbal 'answers' that an individual gives in response to stimulus situations in which some general 'question' is raised (p. 6)."

Although the terms, opinion and attitude, may represent somewhat different intervening variables, the research has indicated that attitude can be defined as a general orientation of which opinions are the more specific manifestation. An assessment of opinions may, therefore, be expected to provide indications of the general attitude toward the objects or subjects related to such opinions (White, 1973).

Summary

In chapter II, the research related to the problem of the investigators was considered in three sections which defined the
major areas of emphasis: (a) attitudes toward mental retardation; (b) attitude changes toward mental retardation; and (c) the Mental Retardation Opinion Scale - Short Form.

The concern about attitudes towards mental retardation was considered as a research area not newly introduced to the scientific community. In fact, social problem researchers such as Mendelssohn (1954) recommended that attitude studies were a promising area of investigation for researchers dedicated to advancing the livelihood of the mentally retarded.

A review of the literature by Norin (1975) suggested that most of the studies concerned with attitudes toward mental retardation vary considerably in population choice, statistical design, experimental control and sophistication. Therefore, most of the studies were not comparable (Norin, 1969).

Studies dealing with attitudes toward mental retardation were divided into seven subject-related population groups: 1) attitudes of parents of retarded individuals, 2) attitudes of professionals, 3) attitudes of institutional workers, 4) attitudes of employers, 5) attitudes of ecologists, 6) self attitudes of retarded children, and 7) attitudes of students.
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UNIVERSITY MICROFILMS
CHAPTER III

METHODOLOGY

Chapter III is comprised of five major sections which define the specific methods and procedures utilized in the study.

In the initial section, the five research null hypotheses and other questions related to the study are stated. A detailed description of the samples is then presented. The third section discussed the instrument and academic exposure materials used in the study. Section four explained the experimental design procedures which governed the operational format of the investigation. The final section considered the research design and described the statistical methods used in analyzing the data.

Hypotheses

The following five null hypotheses were investigated in this study:

Null hypothesis one. There are no significant differences between level of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

Null hypothesis two. There is not a significant difference between black male and female student's level of accepting attitude toward mental retardation.
Null hypothesis three. Academic exposure will not cause a significantly positive attitude change in black students residing in the northern, southern and southwestern regions of this country.

Null hypothesis four. After academic exposure, there will not be significant differences between level of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

Null hypothesis five. Academic exposure will not cause a more significantly positive attitude change among male than among female black students.

Samples

The samples for this study were taken from populations located in three separate regions of this country.

Population I (north). Samples taken from population I consisted of 200 (99 males, 101 females) black students attending a university in Ohio, a predominantly white coeducational institution, managed and supported by the state of Ohio. The university was located in a large urban city in central Ohio.

All 200 students were freshmen between the ages of 17-23. All were enrolled in freshmen level introductory black studies classes that met twice weekly in large (approximately 85 students per meeting) lecture settings. Data taken from personal data forms (Appendix D) and entered in Table 1, suggested that a vast majority of students' permanent residence was in urban centers of the State.

Population II (south). Samples taken from population II consisted of 194 (102 males, 92 females) black resident students attending Jackson State College, a coeducational institution, maintained by the State of Mississippi. The location of the predominantly black college,
in the densely populated section of central Mississippi, is such that nearly one-half of the student body comes from within a 50-mile radius of the institution. Jackson State College maintains that its special mission is to provide educational opportunities for needy and disadvantaged students from both urban and rural circumstances (Jackson State College, 1973-74). Data taken from personal data forms revealed that a great majority of student's permanent residence was in rural areas of the State (see Table 1).

All 194 students were freshmen between the ages of 17-23. All were enrolled in freshmen level introductory psychology classes that met twice weekly in large (approximately 70 students per meeting) lecture settings.

Population III (southwest). Samples taken from population III consisted of 192 (106 males, 86 females) black resident students attending Langston University, a coeducational institution, governed by the state of Oklahoma. The University was located in the predominantly black village of Langston in central Oklahoma.

All 192 students were freshmen between the ages of 17-23. All were enrolled in freshmen level introductory classes that met twice weekly in small (approximately 30 students per meeting) lecture settings. According to data taken from personal data forms (see Table 1) approximately one-half of the students permanently resided in urban areas and the other half permanently resided in rural sections of the state.
TABLE 1

Age, Sex, Academic Major, Residence, and Future Plan of Subjects

<table>
<thead>
<tr>
<th>Populations</th>
<th>Age</th>
<th>Sex</th>
<th>Major Field of Study</th>
<th>Residence</th>
<th>Plan to Teach or Enter Mental Health Profession</th>
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<td>II South N=194</td>
<td>82</td>
<td>18</td>
<td>55</td>
<td>45</td>
<td>40</td>
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<tr>
<td>III Southwest N=192</td>
<td>85</td>
<td>15</td>
<td>55</td>
<td>47</td>
<td>50</td>
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</table>
Instrument

The Mental Retardation Opinion Scale - Short Form (MROS-SF), developed by White (1973), is a forty item adaptation of the original Mental Retardation Opinion Scale (MROS) as developed by Allen and Foshee (1966). The one hundred items for the MROS scale were selected by Allen and Foshee from a pool of 150 items obtained from previous scales and from the literature. Items were selected based on their apparent stability over a thirty day period as determined by preliminary research which included high school students, and undergraduate and graduate college students.

The original MROS opinionnaire was one of the eight instruments utilized in the studies conducted by Allen and Foshee (1966), Allen, Shaw, and Foshee (1967), and Allen and Allen (1968) on summer work experience and training programs in the field of mental retardation (SWEAT). These studies provided response data on the MROS for a group of professional workers in the field of mental retardation (N=47), aides working in mental retardation facilities (N=135), and undergraduate students in health related fields of study (N=651).

Construct validity of the original scale was supported by the fact that the items were selected from attitude scale items available from a variety of research sources. The SWEAT studies also included a separate instrument (Information and Knowledge of Mental Retardation) in their investigations with the stated belief that the MROS was an attitudinal measure rather than a measure of knowledge or information (see Appendix A).
The Mental Retardation Opinion Scale - Short Form (MROS - SF) was utilized in the present investigation to provide the measurement of attitude and attitude change toward mental retardation of black college students residing in the northern, southern and southwestern regions of this country. The forty item MROS-SF was developed by White through an item analysis of the original MROS in accordance with the procedures suggested by T.D. Kelley and as described in Basic Statistical Methods (Downie and Heath, 1965, pp. 229-230).

A sample of 88 (N=177), who had completed the one hundred item MROS opinionnaire during the early stages of the development of the study by White (1973), provided the data for a Chi square analysis of the items. In agreement with the requirements for applying the item discrimination analysis to approximately 27% of the lowest scores and 27% of the highest scores, White developed a classification which included approximately 50% of the lowest scores and 50% of the highest scores in the Chi square analysis. Yates correction was applied to the formula used in the computations when appropriate (Downie and Heath, 1965, p. 240).

White's results of the discrimination analysis of the one hundred MROS items resulted in the final selections of forty items for the MROS-SF. Only those items which were significant at the .01 level or beyond in discriminating between high and low scores were retained (see Appendix II).

Reliability of the MROS-SF. A randomly selected group of twenty-five 8s, representative of the clusters included in the study by White (1973) were administered the MROS-SF. Twenty-two of those
Ss completed a retest administration of the MROS-SF after a two week interval. The correlation between the test-retest scores for the sample group (N=22) resulted in a Pearson $r$ of .86, significant at the .001 level. The Spearman rank correlation coefficient ($\rho$) was .80, which was significant at the .01 level.

White conducted an additional analysis of the reliability of the MROS-SF scale using the split-half method. That procedure, utilizing the scores obtained by the same sample group of twenty-two Ss, resulted in a Pearson produce moment correlation coefficient of .54 (significant at the .01 level) and a Kendall rank correlation ($\tau$) of .44 and $z=4.22$ (significant at the .001 level).

Validity of the MROS-SF. The validity of the original MROS scale was based on the ratings of a group of professionals (N=47) included in the initial studies by Allen and Foshee (1966). In their development and utilization of the 100 item scale, these authors applied ex post facto results to indicate the content validity and the face validity of the scale items. An a priori assumption of the concurrent validity of the items for the MROS scale was established by Allen and Foshee through their selection of items from a pool of items available from existing attitude scales related to mental retardation.

In a further analysis of validity, White (1973) utilized a modification of the Attitude Toward Disabled Persons Scale - Form 0 (ATDP-0) as a criterion measure in determining a measure of the concurrent validity of the MROS-SF scale. He chose the ATDP-0 because of the availability of substantial data from previous studies concerning its reliability and validity (Yuker et al, 1970). White's modification
of the scale involved the replacement of the words "disabled" or "disabled person" with "mentally retarded" in each of the original twenty items. The Mental Retardation adaptation of the ATDP-0 (ATDP-0-MR) was administered by White to the same group of Ss (N=22) included in the test-retest reliability study of the MROS-SF scale. A Pearson r of .818 (significant at the .001 level) was obtained between the test-retest scores on the ATDP-0-MR.

Scoring Procedures for the MROS-SF. As recommended by White (1973) and Allen and Foshee (1966), the normative data provided by Allen and Foshee on the responses of the group of professional workers in the field of mental retardation (N=47) was utilized as the scoring criterion for the MROS-SF responses of all Ss.

All of the professional workers held memberships in the AAMD; twelve were professionally affiliated with the field of medicine, eleven with the field of social work, eleven with the field of psychology, seven with the field of education, and seven with the field of administration.

Within the present investigation, a plus (+) score was given to the Ss' response on each of the forty items which was in the direction of the response of the professional workers. The procedure for scoring the responses on the opinionnaire was in agreement with that recommended by Allen (1966) as being the most appropriate available procedure (see Table 2).
Scoring of the Mental Retardation Opinion Scale - Short Form (MROS-SF). All of the opinionnaire (MROS-SF) were scored according to the following criteria:

a) a plus (+) 1 score was applied to each of the forty items in which the S's response was in the direction (agree or disagree) of the response of the normative group of professional workers in the field of mental retardation, as defined in the original studies of the MROS scale by Allen and Foshee (1966) (see Table 2).

b) a cumulative score for each individual S's attitude level was computed on a scale of 1 to 40 which was the summation of the responses as scored in (a) above.

The scoring procedure was substantially in agreement with the suggestion made by Benjamin Allen for the scoring of response on the MROS in the absence of any more definitive data from the original studies which utilized the MROS scale.

TABLE 2

<table>
<thead>
<tr>
<th>Direction of Professional Opinion (65% or greater)</th>
<th>Subject Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
</tr>
<tr>
<td>Agreement</td>
<td>+1</td>
</tr>
<tr>
<td>Disagreement</td>
<td>0</td>
</tr>
<tr>
<td>Neutral*</td>
<td>0</td>
</tr>
</tbody>
</table>

*no item actually received a majority of responses from the Professional Group in the 'Neutral' classification (White, 1973).
Scoring of the posttest administration of MROS-SF. The scoring of the posttest opinionnaire for the experimental and control groups followed the same procedure as outlined for the scoring of the MROS-SF. The results provided within-cell comparison scores for the statistical analysis of the measured change in attitude toward mental retardation after the specific (academic exposure) intervention.

Experimental (Academic Exposure) Materials

The academic exposure materials consisted of two items: a series of lectures and a film.

The series of lectures used were revised versions of Sartin's (1964) lectures. Sartin investigated the effectiveness of lectures, field trips, and work experience with retarded children in modifying the expressed attitudes of a group of college students toward the mentally retarded. His results tended to suggest that the students modified their misconceptions following the presentation of information, and further modified their misconceptions following the observation of retarded children. The results of his investigation did not permit valid conclusions to be made concerning the effect or value of the experience unit in assisting the student in further modifying their misconceptions.

The present author's revisions of Sartin's lectures were minimal. The only revisions were: the terms "trainable or severely retarded" were substituted for the term "mentally deficient," and
the terms "educable or mildly retarded" were substituted for the term "mentally handicapped." The lectures (on tape and printed handout sheets) was approximately sixteen minutes in length.

The film used was entitled, A World of the Right Size. It discussed the management of mental retardation in the community or institution and how the typical citizen could help the mentally retarded person. The film also informed the viewer about the causes and effects of mental retardation and described what the students' responsibility to the problem is (IMC/RMC, 1973). It was approximately twenty minutes in length.

Experimental Design and Procedures

The investigation was designed to be conducted during a week of regular class meetings within each separate population. Samples within each population were randomly divided (by classes) into four groups. The Solomon four-group design (Campbell and Stanley, 1963) was followed:

<table>
<thead>
<tr>
<th>Group</th>
<th>0₁</th>
<th>X</th>
<th>0₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>0₁</td>
<td>X</td>
<td>0₂</td>
</tr>
<tr>
<td>Group 2</td>
<td>0₃</td>
<td>0₄</td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>X</td>
<td>0₅</td>
<td></td>
</tr>
<tr>
<td>Group 4</td>
<td>0₆</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Group 1 was the full experimental group receiving a pretest, the academic exposure (film and lecture) treatment, and a posttest.
Group 2 was a control group given the pretest, the non-academic exposure (film and lecture on non-related matter) treatment, and the posttest. Group 3 was given the same academic exposure treatment and posttest as Group 1, but was not given the pretest in order that pretest sensitivity could be analyzed. Group 4, a special control group, was given only the posttest to determine whether the maturation of students would be a factor on their attitude.

Pretest sessions. During the first class meetings of groups 1 and 2, the experimenter was introduced to samples randomly assigned (by classes) to these groups. The experimenter was introduced as an Ohio State doctoral candidate who would be lecturing on selected topics later in the week. Following the introduction, personal data forms (Appendix IV) attached to MMOS–SP (Appendix II) were distributed and groups 1 and 2 were asked to take 25 minutes and make the responses they deemed appropriate. After all samples had finished and the forms were collected, the experimenter left the respective classrooms and normal course activities were resumed.

Treatment sessions. At the second meeting of the groups, two days after the pretest was administered, the experimenter used the full classroom period (approximately one hour) to initiate the various (academic, non-academic) treatments. Printed lectures on mental retardation (Appendix III) were distributed to samples (classes) randomly assigned to groups 1 and 3, and they were asked to please silently read along with taped lectures that contained exactly the same information. Following the taped lectures, groups 1 and 3 were shown the film on mental retardation.
Samples (classes) randomly assigned to group 2 were also given printed lectures of approximately the same length as samples in group 1 and 3, however, the lectures were not related to mental retardation. Following the taped lectures, group 2 was shown a film, non-related to mental retardation, of approximately the same length and time as that shown to groups 1 and 3.

Throughout all treatment sessions, samples were asked to not converse with others, and to postpone asking questions until after the posttest had been administered and collected.

**Posttest sessions.** Immediately after the respective films were shown to group 1, 2, and 3, the MROS-SF were redistributed and samples were asked to make the responses they deemed appropriate. After all samples had finished and the forms were collected, the experimenter entertained all questions and comments.

Group 4, the special control group, was also given a posttest, however, the same procedures used to pretest groups 1 and 2 were followed during the posttesting of group 4. The experimenter was introduced to group 4 as an Ohio State doctoral candidate who would be lecturing on selected topics next week. Following the introduction, personal data forms attached to MROS-SF were distributed and group 4 was asked to take 25 minutes and make the responses they deemed appropriate. After group 4 had finished, the forms were collected.

After each respective posttesting session, the experimenter invited all groups to a mass meeting to explain their research involvement.
**Methods of Statistical Analysis**

The measurement data obtained from the research within the study and the resulting statistical analysis involved the posttest group means obtained from samples on the Mental Retardation Opinion Scale - Short Form (MROS-SF).

The posttest means of control groups were utilized as the measure of the dependent variable: attitude toward mental retardation. The change in the MROS-SF scores, as determined by the comparison of posttest means of experimental groups and with posttest means of control groups, provided the measure of the variable: change in attitude toward mental retardation.

Since the experimental study was primarily concerned with determining whether the variation of the dependent variable (attitude/attitude change as determined by group and/or population means on the MROS-SF) was due to or associated with variation on three manipulative/independent variables (geographical region, sex, academic exposure, and their respective interactions); and because all subjects within each population were randomly placed in groups following the Solomon four group design previously described, a triple classification analysis of variance (McNemar, 1962) was used to analyze the data within the 3x2x4 factorial design.

In every instance, each null hypothesis was concerned with the comparison of group and/or population means of all three populations. Since the triple classification analysis of variance did not indicate exactly which group and/or population means were
significantly different from each other at the .05 level of significance, the Tukey's multiple comparison procedure (Scheffe, 1968) was employed to alleviate the problem of multiple comparisons.

In order to get a more in-depth clinical "feel" of how population/group means actually differed, numerous items from the MROS-SF were categorized, and population Ss were compared, based upon the percentage of Ss responses (agree or disagree) in the direction of the responses of the normative group. For example, MROS-SF items 10, 16, and 34 when combined, were considered to have tentatively measured the populations' attitude on diagnosis or detection of mental retardation; items 2, 9, 17, 23, 29, 30, 39, and 40 on institutionalization; item 27 on sterilization; items 13, 15, and 19 on beliefs about causes of mental retardation; and items 22 and 36 on beliefs about physical characteristics of the mentally retarded.

Although the investigator compared frequency differences it was not statistically permissible to employ the Chi-square test. The reason was two-fold: (1) the MROS-SF categories devised by this investigator were not based upon previously acceptable research hence, it could not be demonstrated that the categories were reliable or any more defensible than any other categories that might be used; and (2) due to a lack of previous research or theory related to frequency of responses on the MROS-SF, it was impossible to compute the theoretical or expected population frequencies required for the Chi-square test.
CHAPTER IV

PRESENTATION AND RESULTS OF THE DATA

One of the objectives of the experimental study was to compare the attitudes of blacks toward mental retardation and to determine if their attitudes differed as a function of geographical region (north, south, and southwest) and sex (male and female). Hypotheses one and two were concerned with this aspect of the study.

The major objective of the experimental study, however, was to consider the effect that academic exposure (film and lecture) would have on blacks' attitude toward mental retardation. Hypotheses three through five were concerned with this aspect.

All of the data gathered within the study for analysis of the five hypotheses, resulted from group means of Ss on the MRQ-SF scale and represented the measure of their attitude toward mental retardation.

In analyzing the 3x2x4 factorial design, the triple classification analysis of variance was used as the preliminary statistical procedure for testing the hypotheses; and the Tukey's method (T-method) of multiple comparison was used as the primary statistical procedure for comparing and revealing significant differences in group/population means. Numerous items from the MRQ-SF were also categorized, and population Ss were compared, based upon the percentage of Ss responses (agree or disagree) in the direction of the responses of the normative
null hypothesis. The results and presentation of the data analysis were divided into five sections; each section was preceded by its respective null hypothesis.

**Results**

**Null hypothesis one.** There are no significant differences between levels of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

The triple classification analysis of variance (computed from the elementary statistics contained in Table 11) was used to indicate whether there were significant population mean differences. The results of the analysis of variance are presented in Table 3.

The source of variance - geographical region - had a prob. $F$ of .0001, which indicated that the variation between the population means were significant enough to warrant additional statistical analysis.

Since the analysis of variance did not reveal which specific population mean differed from the other, Tukey's (T-method) method of multiple comparisons was applied to data taken from control groups (group without any treatment; only administered the MROS-SF) in Table 11.

The first T-method population comparison was performed on the north $\bar{x}$s (population 1) and south $\bar{x}$s (population 2) group 4 means. The T-method revealed simultaneous confidence intervals of 1.60 and 13.40, significant at the .01 level. Thus, the southern population
<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F Value</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Exposure (A)</td>
<td>3</td>
<td>4542.90</td>
<td>208.65</td>
<td>0.0001</td>
</tr>
<tr>
<td>Geog. Area (B)</td>
<td>2</td>
<td>1761.34</td>
<td>80.90</td>
<td>0.0001</td>
</tr>
<tr>
<td>Sex (C)</td>
<td>1</td>
<td>859.98</td>
<td>39.50</td>
<td>0.0001</td>
</tr>
<tr>
<td>Interaction: AxB</td>
<td>6</td>
<td>44.74</td>
<td>2.05</td>
<td>0.06</td>
</tr>
<tr>
<td>Interaction: AxC</td>
<td>3</td>
<td>999.63</td>
<td>45.91</td>
<td>0.0001</td>
</tr>
<tr>
<td>Interaction: BxC</td>
<td>2</td>
<td>122.34</td>
<td>5.62</td>
<td>0.004</td>
</tr>
<tr>
<td>Interaction-Triple: AxBxC</td>
<td>6</td>
<td>20.60</td>
<td>0.95</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Ss had a significantly higher level of accepting attitude toward mental retardation than the northern population Ss.

The second population comparison involved the southwest Ss (population 3) and north Ss (population 1) group means. The T-method produced simultaneous confidence intervals of 2.17 and 9.61, significant at the .05 level. Thus, the southwestern population Ss had a significantly higher level of accepting attitude than the northern population Ss.

The final population comparison executed under null hypothesis 1, considered the southwest Ss (population 3) and south Ss (population 2) group means. Simultaneous confidence intervals of -2.17 and 9.16 were found by the T-method. These population group
Percent of Ss Responding (agree or disagree) in the Direction of Normative Group on MROS-SP Item Pertaining to Sterilization – Before Experimental Treatment

<table>
<thead>
<tr>
<th>MROS-SP Item</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td></td>
<td>B&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>27. Sterilization should be required by law for mentally retarded persons.</td>
<td>46.5</td>
</tr>
</tbody>
</table>

<sup>a</sup>Both male and female  
<sup>b</sup>Male  
<sup>c</sup>Female

Means were judged to be non-significant. Thus, the southwestern population Ss level of accepting attitude toward mental retardation was not significantly different from the southern population Ss.

After determining if there were significant differences between levels of accepting attitude among the three populations, the investigator sought a more precise clinical "picture" of where, as measured by the MROS-SP, some of these differences were evident. Population responses were compared (percentage wise) on numerous MROS-SP items.

Concerning the matter of sterilization, Ss responses to MROS-SP item 27 (see Table 4) seemed to have indicated that more of the southern Ss (81.5%) than southwestern Ss (63%) or northern Ss (46.5%) disagreed with the idea of lawful sterilization of mentally
TABLE 5

Percent of Ss Responding (agree or disagree) in the Direction of Normative Group on MROS–SF Items Pertaining to Diagnosis or Detection of M.R. - Before Experimental Treatment

<table>
<thead>
<tr>
<th>MROS–SF Items</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td></td>
<td>(a)</td>
</tr>
<tr>
<td>10. M.R. can usually be diagnosed either at birth or in the first month of life.</td>
<td>30</td>
</tr>
<tr>
<td>16. Most cases of m.r. are not recognized as such before the child begins school.</td>
<td>25.5</td>
</tr>
<tr>
<td>34. The m.r. child can always be recognized by a trained observer during the first year of life.</td>
<td>27.5</td>
</tr>
</tbody>
</table>

\(a\) Both male and female  
\(b\) Male  
\(c\) Female

More southern Ss (39%) than southwestern Ss (37%) or northern Ss (30%) also disagreed with the general notion that mental retardation could usually be diagnosed or recognized during the early years of the developmental period (Table 5).

The larger degrees of attitudinal differences between the population were found among MROS–SF items that pertained to institu-
tionalization of mentally retarded individuals (Table 6). Ss responses seem to have indicated that the northern population was more in favor of institutionalizing mentally retarded persons, and the southern population was more against this approach to care and treatment. For example, whereas 77% of the southern Ss responded in the direction of the normative group on MROS-SF item 17 (see Table 6), only 18.5% of the northern Ss did so. More than half the northern Ss responded in favor of early institutionalization (item 39, Table 6), but less than 33% of the southern Ss took such a position.

Southern Ss (81.5%) and southwestern Ss (42%) seem to have been more in agreement of keeping mentally retarded individuals in the community than northern Ss (item #2, Table 6). Southern Ss (68%) and southwestern Ss were also more in agreement than northern Ss (18%) that mentally retarded persons were able to adjust in a satisfactory manner outside an institution (item 23).

Northern Ss seemingly were more knowledgeable about various causes of mental retardation than southern or southwestern samples. 62% of the northern Ss responded that cultural deprivation in early childhood could lead to mentally retardation; only 47% of the southern Ss and 50% of the southwestern Ss responded in a similar manner (Table 7).

In conclusion, the analysis of null hypothesis 1 indicated a highly significant (p < .01) difference between group 4 means of the northern (population 1) and southern (population 2) Ss; and a significant (p < .05) difference between group 4 means of the northern (population 1) and southwestern (population 3) samples. No significant
TABLE 6
Percent of Ss Responding (agree or disagree) in the Direction of Normative Group on MROS-SF Items Pertaining to Institutionalization - Before Experimental Treatment

<table>
<thead>
<tr>
<th>MROS-SF Items</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td></td>
<td>South</td>
</tr>
<tr>
<td></td>
<td>Southwest</td>
</tr>
<tr>
<td></td>
<td>M  F  M  F  M  F</td>
</tr>
<tr>
<td>2. Most m.r. individuals should remain in the community.</td>
<td>21 20 22 81.5 79 84 42 23 61</td>
</tr>
<tr>
<td>9. Retarded children under six years old should be placed in institutions.</td>
<td>19 19 19 67 61 75 37.5 21 54</td>
</tr>
<tr>
<td>17. Most m.r. children require placement in an institution.</td>
<td>18.5 15 22 77 72 82 51 47 55</td>
</tr>
<tr>
<td>25. M.R.'s are rarely able to adjust in a satisfactorily manner outside an institution.</td>
<td>13 16 20 68 62 75 51 51 51</td>
</tr>
<tr>
<td>29. Most residents in institutions for the m.r. are happier there than they would be in normal society.</td>
<td>16 11 21 70.5 60 81 44 39 49</td>
</tr>
<tr>
<td>30. If I had a m.r. child, I would wish him to be placed in an institution for the m.r.</td>
<td>32 16 48 63 45 81 46.5 22 71</td>
</tr>
<tr>
<td>39. The earlier a m.r. individual is institutionalized, the better.</td>
<td>38.5 17 60 68.5 58 79 42 22 62</td>
</tr>
<tr>
<td>40. A physician should decide to institutionalize a retarded child and then persuade the parents.</td>
<td>35.5 12 59 62 50 74 37.5 14 61</td>
</tr>
</tbody>
</table>

*a Both male and female

b. Male
c. Female
differences were found between the southern (population 2) and southwestern (population 3) group 4 means. Judging from each populations simultaneous confidence intervals, the southern population had the most accepting attitude toward mental retardation, however, not significantly more accepting than the southwest. The northern black population had the least accepting attitude of the three. As a result of those findings, null hypothesis 1 was partially retained and partially rejected.

Null hypothesis two. There is not a significant difference between black male and female students' level of accepting attitudes toward mental retardation.

As a preliminary analysis, the triple classification analysis of variance (computed from elementary statistics in Table 11) was referred to (Table 3).

The source of variance - sex - had a prob. $> F$ of .0001, which suggested that the variation between the group means were significant enough to warrant further testing and comparisons.

Using the T-method a comparison test was ran on group 4 means of males and females from the north (population 1). Simultaneous confidence intervals of 3.86 and 14.02; significant at the .01 level, were found. In applying this same method to the southern (population 2) male and female group 4 means, simultaneous confidence intervals of 5.1 and 7.57, significant at the .05 level of significant, were found. The southwest (population 3) male and female group 4 means resulted in simultaneous confidence intervals of 4.22 and 14.55, significant at the .01 level, when the T-method was employed. Hence, within
each respective population, significant differences existed between male and female students' attitude. Within each separate population, black females seemed to have had a higher level of accepting attitude than Black males.

Looking clinically closer as to where these group 4 mean differences were actually manifest on the MROS-SF, Table 4 showed that the southern (85%), southwestern (80%), and northern (62%) females typically disagreed with the philosophy of lawful sterilization of the mentally retarded, more so than their male counterparts.

Southern (65%), southwestern (60%), and northern (45%) females seemed to have been more knowledgeable than their respective male Ss about matters pertaining to diagnosis or detection of mental retardation (Table 5).

Again, the larger degree of attitudinal differences between the sexes were found among MROS-SF items concerned with institutionalization of mentally retarded persons. The data throughout Table 6 seemed to suggest that females were considerably more in disagreement than males with the policy of institutionalizing mentally retarded individuals. For example, MROS-SF item 30 showed that the southern (81%), southwestern (71%), and northern (48%) females would be generally less inclined to institutionalize their own (hypothetical) mentally retarded child, than would the southern (60%), southwestern (22%), and northern (16%) males Ss.

It would seem, considering MROS-SF items 9 and 39, that males were typically more in favor of early institutionalization than respective female Ss (Table 6). There were not extreme differences, however, between male and female attitudes on whether or not mentally
TABLE 7

Percent of Ss Responding (agree or disagree) in the Direction of Normative Group on MROS-SF Items Pertaining to Beliefs About Causes of M.R. - Before Experimental Treatment

<table>
<thead>
<tr>
<th>MROS-SF Items</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td></td>
<td>B^a</td>
</tr>
<tr>
<td>13. Cultural deprivation in early childhood can lead to m.r.</td>
<td>62</td>
</tr>
<tr>
<td>15. A poor diet can lead to m.r.</td>
<td>48</td>
</tr>
<tr>
<td>19. Venereal disease is responsible for much of the mental retardation.</td>
<td>60.5</td>
</tr>
</tbody>
</table>

^aBoth male and female
^bMale
^cFemale

retarded persons were able to adjust satisfactorily outside an institution (item 23). With the exception of the northern males and females, a majority of Ss seemed to have felt that satisfactory adjustment could possibly be made by mentally retarded persons (Table 6).

As to the generally disposition of institutionalized retarded individuals (item 29), considerable more female Ss than their respective male Ss disagreed with the notion that most retarded persons are happier in institutions than they would be in normal society (Table 6).

Female Ss also seem to have been less inclined to rely upon
TABLE 8

Percent of Ss Responding (agree or disagree) in the Direction of Normative Group on MROS-SF Items Pertaining to Beliefs about Physical Characteristics of M.R. - Before Experimental Treatment

<table>
<thead>
<tr>
<th>MROS-SF Items</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td></td>
<td>B&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>22. Most m.r. individuals have abnormal brain wave patterns.</td>
<td>39 25 53</td>
</tr>
<tr>
<td>36. The child who is below average in intelligence is usually above average physically.</td>
<td>77 71 83</td>
</tr>
</tbody>
</table>

<sup>a</sup> Both male and female  
<sup>b</sup> Male  
<sup>c</sup> Female

their physician's decision to institutionalize a retarded child, than respective male Ss (item 40) (Table 6).

Female Ss appeared to be more knowledgeable about causes of mental retardation than respective male Ss (Table 7). A greater percentage of males seemingly believed that venereal disease was responsible for much of the mental retardation, than respective female Ss (item 19).

Female Ss also appeared to be more informed about physical characteristics of the mentally retarded, than their male Ss (Table 8). For instance fewer female Ss believed that most mental retarded
individuals have abnormal brain wave patterns than respective male Ss (item 22).

In cross-population sex comparisons (i.e. females' group 4 means compared with males from other populations), females were again found to have had significantly ($p < .01$) more accepting attitudes toward mental retardation than males (see Table 9). A notable exception however, was the southern (population 2) male. No significant differences were found between the southern male group 4 mean and the group 4 means of either the southwest or northern female.

In same-sex comparisons (i.e. male group 4 means compared with other males, and female group 4 means compared with other females) the southern male Ss had a more accepting attitude toward mental retardation than any other male Ss ($p < .01$) (see Table 10). No significant difference was found between the southwest and northern male Ss. Both the southwest and southern female Ss had significantly ($p < .05$) more accepting attitudes towards mentally retarded, than the northern female Ss. No significant differences were found between the southern and southwestern female Ss.

It was concluded that significant group 4 mean differences existed between the northern (population 1) male and female Ss ($p < .01$), southern (population 2) male and female Ss ($p < .05$), and the southwest (population 3) male and female Ss ($p < .01$); that black female Ss typically had more favorable attitudes toward mental retardation than their respective black male Ss. Null hypothesis two was thus, rejected.

Null hypothesis three. Academic exposure will not cause a significantly positive attitude change in black students in the
<table>
<thead>
<tr>
<th>Populations</th>
<th>Group 4 Means (groups with posttest only)</th>
<th>T - Method Simultaneous Confidence Intervals</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southwest female vs.</td>
<td>23.83</td>
<td>-1.10 and 6.10 ns</td>
<td>ns.</td>
</tr>
<tr>
<td>Southern male</td>
<td>20.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southwest female vs.</td>
<td>25.83</td>
<td>7.55 and 18.23</td>
<td>.01</td>
</tr>
<tr>
<td>Northern male</td>
<td>10.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern female vs.</td>
<td>24.89</td>
<td>5.21 and 15.67</td>
<td>.01</td>
</tr>
<tr>
<td>Southwestern male</td>
<td>14.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern female vs.</td>
<td>24.89</td>
<td>8.44 and 19.44</td>
<td>.01</td>
</tr>
<tr>
<td>Northern male</td>
<td>10.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern female vs.</td>
<td>19.89</td>
<td>-1.70 and 3.85 ns</td>
<td>ns.</td>
</tr>
<tr>
<td>Southern male</td>
<td>20.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern female vs.</td>
<td>19.89</td>
<td>.68 and 10.19</td>
<td>.01</td>
</tr>
<tr>
<td>Southwestern male</td>
<td>14.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Populations</td>
<td>Group 4 Means (groups with posttest only)</td>
<td>T - Method Simultaneous Confidence Intervals</td>
<td>p</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------------------------------</td>
<td>---------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Southern male vs.</td>
<td>20.95</td>
<td>1.62 and 11.38</td>
<td>.01</td>
</tr>
<tr>
<td>Southwestern male</td>
<td>14.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern male vs.</td>
<td>20.95</td>
<td>4.84 and 15.17</td>
<td>.01</td>
</tr>
<tr>
<td>Northern male</td>
<td>10.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southwestern male vs.</td>
<td>14.45</td>
<td>-.13 and 7.15</td>
<td>ns</td>
</tr>
<tr>
<td>Northern male</td>
<td>10.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern female vs.</td>
<td>24.89</td>
<td>1.14 and 8.85</td>
<td>.05</td>
</tr>
<tr>
<td>Northern female</td>
<td>19.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern female vs.</td>
<td>24.89</td>
<td>-1.70 and 5.85</td>
<td>ns</td>
</tr>
<tr>
<td>Southwestern female</td>
<td>23.85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southern female vs.</td>
<td>23.85</td>
<td>.51 and 7.57</td>
<td>.05</td>
</tr>
<tr>
<td>Northern female</td>
<td>19.89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
geographical regions.

Since the triple classification analysis of variance (Table 3) indicated that academic exposure (prob. > F of .0001) affected attitude change, the present investigator was further interested in determining if academic exposure was the sole treatment causing attitude change or if other extraneous variables could have possibly produced effects confounded with the effects of the experimental stimulus (academic exposure).

It was therefore necessary to demonstrate that the extraneous variables often jeopardizing internal and external validity, had been controlled throughout the analysis of null hypothesis three. The few extraneous variables that could have served as rival explanations in hypothesis three were: pretesting (effects of pretest on posttest); history (events occurring between pre and posttest in addition to academic exposure); and maturation (processes within the Ss operating as a function of time) (Campbell and Stanley, 1963, p.5).

The first extraneous variable to be considered was that of pretesting. By paralleling the full experimental and full control groups (Tables 11 and 12) with experimental and control groups lacking the pretest, both the main effects of pretesting and the interaction of pretesting and treatment (academic exposure) were determinable.

In comparing group 1 means (those groups receiving a pretest and treatment) with group 3 means (those groups receiving only treatment), it was found that no significant differences existed among these groups within any of the populations; however, both groups 1 and 3 means were significantly different from group 4 means (Table 12).
TABLE 11

Posttest Group Means, Standard Deviations and Group Size as Related to Independent Variables – Academic Exposure, Geographical Region and Sex

<table>
<thead>
<tr>
<th>Populations</th>
<th>Sex</th>
<th>Academic Exposure Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Full Experimental (Pre-test and treatment)</td>
</tr>
<tr>
<td>North</td>
<td>M</td>
<td>28.16 (S.D. = 4.25)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>26.21 (S.D. = 5.96)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>25</td>
</tr>
<tr>
<td>South</td>
<td>M</td>
<td>77.95 (S.D. = 5.67)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>50.09 (S.D. = 5.91)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>25</td>
</tr>
<tr>
<td>Southwest</td>
<td>M</td>
<td>29.41 (S.D. = 5.82)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>28.49 (S.D. = 4.49)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>22</td>
</tr>
</tbody>
</table>
This finding implied that, although there was definitely a significant attitude change among all populations following treatment (academic exposure), pretesting was not the sole determinant of attitude. Significant changes were noted in both groups receiving pretest (group 1) and groups not receiving a pre-test (groups 3).

Group 1 means (pretest and treatment) and group 2 means (pretest and no treatment) among all populations were then compared by the Tukey's method of multiple comparisons. If pretesting alone had caused a significant attitude change, then significant differences would have existed between groups 2 and 4 means, but not between group means 1 and 2 (Table 11 and 12). Since no significant means difference were found between groups 2 and 4 among any of the populations, but were found between group means 1 and 2 among all populations, it was concluded that pretesting did not have any effect on attitude change among any of the populations.

The final extraneous variables considered were those of history and maturation. If these variables alone had produced the attitude change, then no group mean differences would have existed between groups 1 (pretest, treatment, posttest) and groups 2 (pretest, no treatment, posttest), in that both groups 1 and 2 by chance, were susceptible to the same maturational and historical events. Since group 1 and 2 mean differences were found among all populations (Table 12), it was concluded that maturation and history had no significant effect on attitude change among any of the populations.

Having eliminated all rival hypotheses, (namely that extraneous variables, not academic exposure, had caused significant attitude
TABLE 12

Significance of the Differences Among Posttest Means of all Experimental and Control Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>North (Population 1)</th>
<th>South (Population 2)</th>
<th>Southwest (Population 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 and 2</td>
<td>.01</td>
<td>.05</td>
<td>.05</td>
</tr>
<tr>
<td>1 and 3</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>1 and 4</td>
<td>.01</td>
<td>.05</td>
<td>.05</td>
</tr>
<tr>
<td>2 and 3</td>
<td>.01</td>
<td>.05</td>
<td>.05</td>
</tr>
<tr>
<td>2 and 4</td>
<td>ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>3 and 4</td>
<td>.01</td>
<td>.05</td>
<td>.05</td>
</tr>
</tbody>
</table>

*Male and female combined.

changes), both full experimental and experimental group means were then compared with full control and control group means, as prescribed by the Tukey's method of multiple comparisons. Within every population considered, significant mean differences were evident (Table 12). No significant differences were found, however, within any population when full experimental groups (groups 1) were compared with experimental groups (groups 3), and no significant differences were found when full control groups (groups 2) were compared with control group means (groups 4). Therefore, null hypothesis three was rejected, and its alternative hypothesis, that academic exposure did cause a significantly positive attitude change, was accepted.

Null hypothesis four. After academic exposure, there will
not be significant differences between levels of accepting attitudes toward mental retardation of blacks residing in the north, south, and southwest regions of this country.

As in hypothesis one, the preliminary analysis, the triple classification analysis of variance (Table 3) indicated that throughout the investigation, academic exposure contributed to statistically significant variance or mean differences. However, it was again necessary to employ Tukey's method of multiple comparisons to specify exactly where those mean differences were present when considering null hypothesis four. The T-method was applied to data taken from full experimental groups 1 (groups that received pretest, academic exposure treatment, and posttest) in Table 11.

The first T-method population comparison was performed on the north (population 1) and south (population 2) group 1 means. The T-method revealed simultaneous confidence intervals of 1.83 and 22.52 significant at the .05 level. Just as in hypothesis 1 (before academic exposure) the southern population Ss continued to have a significantly higher level of accepting attitude toward mental retardation than the northern population Ss after both populations had received the experimental treatment (academic exposure). A graphical illustration of the population mean differences was depicted in Figure 1.

The second population comparison involved the southwest Ss (population 3) and north Ss (population 1) group 1 means. The T-method produced simultaneous confidence intervals of -5.95 and 7.15, a non-significant difference. Unlike hypothesis 1 (before academic exposure), the southwest Ss no longer had a significantly higher level of accepting
attitude than the northern Ss after both population had received the experimental (academic exposure) treatment (see Figure 1).

The final population comparison executed under null hypothesis four, considered the southwest Ss (population 3) and south Ss (population 2) group 1 means. Simultaneous confidence intervals of -4.05 and 10.47 were found by the T-method. These population group 1 means were judged to be non-significant. Thus, as in hypothesis 1, the southwestern population Ss level of accepting attitude toward mental retardation was not significantly different from the southern population Ss (Figure 1).

As in hypothesis 1, after determining if there were significant differences between level of accepting attitudes among the three populations, an additional analysis was performed in an attempt to identify where some of the differences were evident. Population responses were compared (percentage wise) on numerous MRQ-SF items. Only the northern and southern populations were compared, since significant mean differences were found only among these two populations.

Major attitudinal gains (responses in the direction of the normative group) by the southern population were most apparent on MRQ-SF items noted in Tables 13 and 14. It seemed that after the southern Ss had been academically exposed, they no longer appeared to be less knowledgeable about the cause of or physical characteristics related to mental retardation than the northern Ss.

Attitudinal gains (responses in the direction of the normative group) by the northern population were evident in Tables 15 and 16. After the experimental treatment, the northern Ss attitude toward
TABLE 13

Percent of Ss Responding (agree or disagree) in the Direction of Normative Group on MROS-SF Items Pertaining to Beliefs About Causes of M.R. - After Experimental Treatment

<table>
<thead>
<tr>
<th>MROS-SF Items</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>B^a</td>
</tr>
</tbody>
</table>

13. Cultural deprivation in early childhood can lead to m.r.  

| | | | |
| | 81 | 82 | 80 | 82.5 | 85 | 80 | 78 | 85 | 73 |

15. A poor diet can lead to m.r.  

| | | | |
| | 75 | 73 | 73 | 76.5 | 79 | 74 | 74 | 78 | 70 |

19. Venereal disease is responsible for much of the mental retardation.  

| | | | |
| | 81.5 | 81 | 82 | 85 | 87 | 83 | 83 | 85 | 81 |

*^a* Both male and female  
*^b* Male  
*^c* Female

Sterilization and institutionalization seemed to have moved more in the direction of the southern Ss and normative group, however, not to the extent that means didn't significantly differ.

Under null hypothesis four, it was concluded that, after academic exposure, no significant differences were present between the southwest (population 3) and the north (population 1) group 1 means, nor were significant differences present between group 1 means of the southwest Ss (population 3) and the south Ss. However, following academic exposure, significant group 1 mean differences were found...
TABLE 14

Percent of Ss Responding (agree or disagree) in the Direction of
Normative Group on MROS-SF Items Pertaining to Beliefs about
Physical Characteristics of M.R. - After Experimental Treatment

<table>
<thead>
<tr>
<th>MROS-SF Items</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td>22. Most m.r. individuals have abnormal brain wave patterns.</td>
<td>B⁹ M¹ F³</td>
</tr>
<tr>
<td></td>
<td>65.5  71  70  69.5 77 62 62.5</td>
</tr>
<tr>
<td>36. The child who is below average in intelligence is usually above average physically.</td>
<td>86.5  87  86  88  88  88  87.5</td>
</tr>
</tbody>
</table>

⁹Both male and female  
¹Male  
³Female

to exist between northern Ss (population 1) and southern Ss (population 2). As in hypothesis one, the southern Ss seemed to have continued to manifest a more favorable attitude toward mental retardation. Null hypothesis four was therefore partially retained and partially rejected.

Null hypothesis five. Academic exposure will cause not a more significantly positive attitude change among male than among black female students.

Since in hypothesis two, the triple classification analysis of variance (Table 3) had already indicated that sex possibly contributed to variance, the T-method of multiple comparisons was used to
compared male group 4 means (posttest only) with male group 1 means (pretest, treatment, posttest), and female group 4 means with female group 1 means (data from Table 11). This procedure provided a view of the attitudinal difference of Ss before and after they had undergone the treatment variable (academic exposure).

Northern males Ss were the first groups 4 and 1 means considered. Simultaneous confidence intervals of 11.66 and 22.75, significant at the .01 level, were found. Northern female groups 4 and 1 means had simultaneous confidence intervals of 1.14 and 11.20, significant at the .05 level. Further illustration of the groups 4 and 1 mean differences for northern male and female Ss was presented in Figure 2. In applying the T-method to southern male Ss group 4 and 1 means, simultaneous confidence intervals of 7.65 and 18.35, were evident, significant at the .01 level. Southern females had simultaneous confidence levels of 5.06 and 9.80, significant at the .05 level (Figure 3). The southwestern male groups 4 and 1 mean comparison resulted in simultaneous confidence intervals of 9.21 and 20.12, significant at the .01 level. Simultaneous confidence intervals of .06 and 9.26, significant at the .05 level, were found for southwestern females (Figure 4).

Two specific features were noted from the graphic presentation (Figure 1–4) of groups 4 and 1 means' comparisons:

1. Within each separate population, females had a higher level of accepting attitude before either sex underwent the experimental treatment.
Fig. 1. Comparisons of groups 4 (posttest only) with groups 1 (posttest with treatment) population means.

Fig. 2. Comparison of northern male and female experimental group means with control group means.
Fig. 3. Comparison of southern male and female experimental group means with control group means.

Fig. 4. Comparison of southwestern male and female experimental group means with control group means.
2. Within each separate population, males had a higher level of accepting attitude after both sexes had been exposed to the experimental treatment.

Major attitudinal changes (responses in the direction of the normative group) by the male Ss were highly apparent on MM03-SF items noted in Tables 15 through 16. Tables 15 and 14 showed that within all populations, males no longer seemed to be less knowledgeable about causes of or physical characteristics related to mental retardation than their respective females Ss.

Also, in viewing data in Table 15, it would seem that large degrees of attitudinal differences between the sexes over the issue of institutionalization, no longer existed. In fact, after both sexes had received the experimental treatment, male seem to have disagreed with the idea of institutionalization as much as, if not more so, their respective females Ss. Males continued, however, to rely upon their physician's decision to institutionalize a retarded child, more so than female Ss among all respective populations (item 59, Table 15).

After the experimental treatment, females seemingly continued to have been more opposed to sterilization of mentally retarded persons (Table 16). However, the differences between males and females was not nearly as great as it seemed to have been before Ss received the experimental treatment (Table 14).

In cross-population sex comparisons (i.e., difference between male groups 1 and 4 means compared with difference between groups 1 and 4 means of females from other populations) all male Ss were again found to have made a more significant attitude change than females.
TABLE 15

Percent of Ss Responding (agree or disagree) in the Direction of Normative Group on MROS-SF Items Pertaining to Institutionalization - After Experimental Treatment

<table>
<thead>
<tr>
<th>MROS-SF Items</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td>IF</td>
<td>M</td>
</tr>
<tr>
<td>2. Most m.r. individuals should remain in the community.</td>
<td>81.5 84 79 89 89 89 80 81 79</td>
</tr>
<tr>
<td>9. Retarded children under six years old should be placed in institutions.</td>
<td>76 79 73 81 84 78 76 80 72</td>
</tr>
<tr>
<td>17. Most m.r. children require placement in an institution.</td>
<td>77 77 77 83.5 85 82 74 78 72</td>
</tr>
<tr>
<td>23. M.R.'s are rarely able to adjust in a satisfactorily manner outside an institution.</td>
<td>76.5 81 72 80 83 77 77.5 79 76</td>
</tr>
<tr>
<td>29. Most residents in institutions for the m.r. are happier there than they would be in normal society.</td>
<td>76.5 78 75 83 83 83 81.5 83 80</td>
</tr>
<tr>
<td>30. If I had a m.r. child, I would wish him to be placed in an institution for the m.r.</td>
<td>88 89 87 86.5 89 84 84 84 84</td>
</tr>
<tr>
<td>39. The earlier a m.r. individual is institutionalized, the better.</td>
<td>80 81 79 83 86 80 80 81 79</td>
</tr>
<tr>
<td>40. A physician should decide to institutionalize a retarded child and then persuade the parents.</td>
<td>71.5 69 74 78 78 78 78 69 79</td>
</tr>
</tbody>
</table>

a Both male and female
b Male
c Female
**TABLE 16**

Percent of Ss Responding (agree or disagree) in the Direction of Normative Group on MROS-SF Item Pertaining to Sterilization - After Experimental Treatment

<table>
<thead>
<tr>
<th>MROS-SF Item</th>
<th>Populations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North</td>
</tr>
<tr>
<td>27. Sterilization should be required by law for mentally retarded persons.</td>
<td>B^a 76.5</td>
</tr>
</tbody>
</table>

^a Both male and female  
^b Male  
^c Female

from any other population.

In same-sex comparisons (i.e. differences between groups 1 and 4 means of male compared with males, and the same procedure for females) the northern males' simultaneous confidence intervals suggested that he made the most significant attitude change of all males and the simultaneous confidence intervals of the northern female suggested that she made the most significant attitude change of all females.

As the T-method comparisons and the graphical illustrations in Figures 2-4 showed, black males within each separate population seem to have made a more significantly positive attitude change than their respective females as a result of the experimental treatment (academic exposure), Null hypothesis five was consequently rejected.
CHAPTER V

REVIEW, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is divided into four major sections to provide (1) a review of the study, (2) a discussion of and implication of the findings, (3) limitations of the study, and (4) suggestions and recommendations for further research in areas related to the study.

Review of the Study

Introduction

As has been pointed out by Gottlieb (1975), one of the ironies in the field of mental retardation is that although it is well known among professional workers that the overwhelming proportion of retardation is attributable to cultural and/or environmental differences and not to observable organic and/or genetic anomalies, the predominant view of mental retardation among the public at large is that of a mongoloid or physically damaged person. Begab (1968) too, observed that retarded people were viewed as sick and physically handicapped.

Other researchers, such as Greenbaum and Wang (1965) reported that the public view of mental retardation was consistently more negative than for mental illness. In contrast, Harasymiw (1971) has offered data which indicated that attitudes towards mental retardation and mental illness were quite similar and that the two conditions are
often confused by the public (Withrop and Taylor, 1957; Gaskin, 1963; Hollinger and Jones, 1970; Lattimer, 1970).

What kinds of attitudes do blacks maintain toward mental retardation? An extensive review of the attitudinal literature indicated no research dealing with the attitudes of substantial samples of blacks toward the mentally retarded. The purpose of this study was to measure the attitudes toward mental retardation of substantial samples of black students; to academically expose (provide a lecture and film) the students to subject matter on mental retardation and to determine if that academic exposure was capable of producing a significantly positive attitude change.

More specifically, this study attempted to investigate and determine if:

(a) there are significant differences between level of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

(b) there is a significant difference between black male and female students' level of accepting attitudes toward mental retardation.

(c) academic exposure will cause a significantly positive attitude change in black students residing in the northern, southern and southwestern regions of this country.

(d) after academic exposure, there will be significant differences between level of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

(e) academic exposure will cause a more significantly positive attitude change among female than among male black students.
Following a review procedure similar to that devised by Harth (1973), the present researcher found it more comprehensible and expedient to divide the literature review section into subject-related population groups. The seven groups were: 1) attitudes of parents of retarded individuals, 2) attitudes of professionals, 3) attitudes of institutional workers, 4) attitudes of employers, 5) attitudes of clergymen, 6) self attitudes of retarded children, and 7) attitudes of students.

Populations

The samples for this study were taken from populations located in three separate regions of this country. Samples in Population I (North) consisted of 200 (102 males, 92 females) black students attending a large northern university; a predominantly white coeducational institution in Ohio. Population II (South) consisted of 194 (102 males, 92 females) black students attending Jackson State College, a predominantly black coeducational institution in Mississippi. Population III (Southwest) consisted of 192 (106 males, 86 females) black students attending Langston University, a predominantly black coeducational institution in Oklahoma.

All 586 samples were residents of their respective state, were between the ages of 17-23, and all were academically classified as freshmen.
Instrument and Experimental Materials

The criterion instrument, The Mental Retardation Opinion-Short Form (MROS-SF), was utilized in the present investigation to provide the measurement of attitude and attitude change toward mental retardation. The normative data on the 40-item MROS-SF was devised from the responses of forty-seven professional workers (medicine, social work, psychology, education, administration) in the field of mental retardation.

Academic exposure materials consisted of two items - a series of lectures and a film. The series of lectures used were revised versions of Sarin's (1964) lectures. The film informed the viewer about the causes and effects of mental retardation and discussed what the students responsibility to the problem is (IMC/RNC, 1975).

Experimental Design

The investigation was designed to be conducted during a week of regular class meetings within each separate population. Samples within each population were randomly divided (by classes) into four groups and the Solomon four-group design (Campbell and Stanley, 1963) was followed. Group I was the full experimental group receiving a pretest, the academic exposure (film and lecture) treatment, and a posttest. Group 2 was a control group given the pretest, the non-academic exposure (film and lecture on non-related matter) treatment, and the posttest. Group 3 was given the same academic exposure treatment and posttest as Group 1, but was not given the pretest.
in order that pretest sensitivity could be analyzed. Group 4, a special control group, was given only the pretest.

**Methods of Statistical Analysis**

The measurement data obtained from the research within the study and the resulting statistical analysis involved the posttest group means obtained by samples on the **MROS-SF**. The posttest means of control groups 2 and 4 were utilized as the measure of the dependent variable: attitude toward mental retardation. The change in the **MROS-SF** scores, as determined by the comparison of posttest means of experimental groups with posttest means of control groups, provided the measure of the variable: change in attitude toward mental retardation.

Since the experimental study was primarily concerned with determining whether the variation of the dependent variable (attitude/attitude change as determined by group and/or population means on the **MROS-SF**) was due to or associated with variation on three manipulative/independent variables (geographical region, sex, academic exposure, and their respective interactions); and because all subjects within each population were randomly placed in groups following the Solomon four group design (Campbell and Stanley, 1963), a triple classification analysis of variance (McNemar, 1962) was used to analyze the data of the 3x2x4 factorial design.
The posttest means of control groups 2 and 4 were utilized as the measure of the dependent variable: attitude toward mental retardation. The change in the MROS-SF scores, as determined by the comparison of posttest means of experimental groups 1 and 3 with posttest means of control groups, provided the measure of the variable: change in attitude toward mental retardation.

Since the experimental study was primarily concerned with determining whether the variation of the dependent variable (attitude/attitude change as determined by group and/or population means on the MROS-SF) was due to or associated with variation on three manipulative/independent variables (geographical region, sex, academic exposure, and their respective interactions); and because all subjects within each population were randomly placed in groups following the Solomon four group design previously described, a triple classification analysis of variance (McNemar, 1962) was used to analyze the data within the 3x2x4 factorial design.

In every instance, each null hypothesis was concerned with the comparison of group and/or population means of all three populations. Since the triple classification analysis of variance did not indicate exactly which group and/or population means were significantly different from each other at the .05 level of significance, the Tukey's multiple comparison procedure (Scheffe, 1968) was employed to alleviate the problem of multiple comparisons.

In order to get a more in-depth clinical "feel" of how population/group means actually differed, numerous items from the MROS-SF were categorized, and populations Ss were compared, based upon
the percentage of Ss responses (agree or disagree) in the direction of the responses of the normative group. For example, MROS-SF items 10, 16, and 34 when combined, were considered to have tentously measured the populations' attitude on diagnosis or detection of mental retardation, items 2, 9, 17, 23, 29, 30, 39, and 40 on institutionalization; item 27 on sterilization; items 13, 15, and 19 on beliefs about causes of mental retardation; and items 22 and 36 on beliefs about physical characteristics of the mentally retarded.

Although the investigator compared frequency differences, it was not statistically permissible to employ the Chi-square test. The reason was two-fold: (1) the MROS-SF categories devised by this investigator were not based upon previously acceptable research hence, it could not be demonstrated that the categories were reliable or any more defensible than any other categories that might be used; and (2) due to a lack of previous research or theory related to frequency of responses on the MROS-SF, it was impossible to compute the theoretical or expected population frequencies required for the Chi-square test.

Discussion of The Findings

Comparison of Populations - Before Experimental Treatment

It was predicted (null hypothesis one) that there would be no significant differences between levels of accepting attitudes toward mental retardation of black students residing in the northern, southern, and southwestern regions of this country.

The triple classification analysis of variance suggested that there were significant population mean differences. Tukey's (T-method)
method of multiple comparisons was also used, since the analysis of variance did not reveal which specific population differed from the other. The T-method indicated that the southern population had a significantly \( p < 0.01 \) higher level of accepting attitude than the northern population; that the southwest population had a significantly \( p < 0.05 \) higher level of accepting attitude than the northern population; and that no significant differences existed between the southern and southwest populations' attitude toward mental retardation. Null hypothesis one was therefore partially rejected and partially retained.

**Conclusions.** As was shown in Chapter 5 (Table 2), the majority of the northern (Ohio) Ss resided in urban areas, the majority of the southern (Mississippi) Ss resided in rural areas, and the southwest (Oklahoma) Ss were nearly evenly divided between rural and urban places of residence. For practical as well as theoretical reasons, the present investigator (based upon his personal knowledge and involvement with the 3 geographical regions) considered the northern population to have constituted that of predominantly black middle-class; the southern population as predominantly black lower-class; and the southwest population as basically a mixture of black middle and lower classes.

The populations were viewed that way with the full understanding that there is very little agreement among scholars as to the nature of social differentiation, the ease of movement from one social level to another, and the criteria to be used in identifying different social strata. However, as Hess (1970) has pointed out, it is generally accepted that members of the society differ with respect to the
prestige of their occupations, power to influence the institutions of
the community, economic resources, and the availability of educational
and occupational opportunity, and that different levels of socioeco-

nomic status offer students experiences which are both different and
unequal with respect to the resources and rewards of the society.
It was felt that these factors were present and contributed to dif-

ferences between the populations considered in this study.

The findings within the present study were generally in agree-
ment with the majority of the related research. In the great majority
of the empirical research on the effects of social class, it was
generally found that there is greater acceptance of mental retardation
in the lower social class (Cleland and Chambers, 1959; Holt, 1958;
Krumm, 1965; Bruninak, Rynders and Gross, 1974; and Greenbaum and
Wang, 1965).

The studies by Goodman, Gottlieb, and Harrison (1972) and
Gottlieb and Budoff (1975) both employed identical procedures to
assess the social status of EMR children in an affluent middle class
and poor rural area respectively. Although no direct statistical
comparisons were made between the data in the two studies, an examina-
tion of the percentage of rejection scores from both samples indicated
that EMR children were rejected more often by the middle class sample
than by the poor rural sample of subjects.

Farber (1968) showed that there is a greater tendency for
parents who have attended college to place their retarded child in an
institution than there is for parents with a high-school education or
less. Farber concluded that these findings suggested that when
probabilities of upward social mobility were high, families tended to
rid themselves of impediments to occupational and social success and,
accordingly, institutionalized their retarded child. The lower-class
families of retarded individuals were less motivated toward effective
upward social mobility and hence did not regard their retarded child
as an impediment to their socioeconomic aspirations.

Ehler (1963) reported that consistent with their philosophy of
"taking things as they come", the lower class had a more accepting
attitude toward mental retardation and tended to keep their mentally
retarded children at home as long as possible. Similar findings
were reported in the present study.

In line with these findings was Farber's (1968) argument that the
middle class has a more difficult time in accepting the retarded
child because the retarded child represented its (the middle class)
own failure. He argues that the stigma of mental retardation is less
in the lower-social class, which seems to suffer from a multiplicity
of stigmata.

High acceptance of mental retardation among the (rural) lower class blacks may also be explained by the realization that the lower segments of society occupy a place in the structure where individuals are lacking in freedom of choice or in the resources to carry out aspirations for changing their way of life, should they have motivations to do so. They may look upon the mentally retarded as being locked in a social web of negative events that's similar, if not identical to their unwanted social condition.

Another feasible explanation might be that because proportional
representation of moderately retarded individuals is significantly greater in the lower socioeconomic segments of society than in the more privilege groups, lower class individuals may inevitably have more personal contact with persons considered to be mentally retarded. As a result of this personal contact, they may be better able to see the retarded person as a person, rather than a series of negative stereotypes (Marth, 1973).

On the other hand, less acceptance of mental retardation among the (urban) middle class blacks might be attributed to their belief that in sprawling urban complexes where industry is shifting from mechanization to automation, and simple jobs requiring muscle power are becoming harder to find, the mentally retarded will have an increasingly difficult task of using environmental cues, drawing proper social inferences and evolving a pattern of consistent adaptive behavior.

Comparison of Sex Differences - Before Experimental Treatment

It was predicted (null hypothesis 2) that among the northern, southern and southwestern regions of this country there would be no significant differences between black males and females' level of accepting attitudes toward mental retardation.

In viewing the triple classification analysis of variance, the source of variance-sex had a prob. of .0001, which suggested that further testing was warranted. The T-method of multiple mean comparisons showed that significant mean differences were present between the northern male and female Ss (p < .01); the southern male and female Ss (p < .05); and the southwestern male and female Ss (p < .01). Within each separate population, black females seemed to have a higher
level of accepting attitude toward mental retardation than their respective black males. Null hypothesis two was thus, rejected.

Conclusions. In the majority of related studies reviewed for the present investigation, the particulars of the sex variable were not specifically or clearly defined. While a number of studies utilized matched samples to control the sex variable, few studies provided the results of data analysis concerned with the sex variable. There were, however, indications of a consistent tendency for females to show higher levels of accepting attitude toward the mentally retarded across most of the related studies.

For example, Harusymiw (1971) reviewed literature on differences in attitudes of males and females toward the disabled in general. He concluded that the majority of evidence collected in this country indicates that females tend to express more favorable attitudes than males. Jordan (1968) repeatedly found that women's attitudes toward the disabled were more positive than men's attitudes.

Greenbaum and Yang (1965), who examined attitudes toward the mentally retarded specifically, also reported that females expressed significantly more positive attitudes than males.

Polansky (1961) used the Mental Deficiency Misconception Scale-MDMS and related responses of psychiatric technicians in a state hospital for the mentally retarded to several psychological variables. It was found that female technicians had fewer misconceptions than males and appeared to be more "tender hearted." Polansky's proposition that women appeared to be more "tender hearted" was supposedly borne out by the fact that they scored higher than men on the Edwards Personal...
Preference Schedule variable labeled Nurturance, which was partly defined as, "...to treat others with kindness and sympathy, to sympathize with others who are hurt or sick" (p. 15).

Gottwald (1970) found that women were more aware than men of the causes of mental retardation, especially as they related to birth injury and prenatal factors. Men and women in his study did not differ significantly in their responses to the social worth of a retarded person (e.g., what proportion of the mentally retarded would make good friends, neighbors, citizens, etc). In other categories, such as the proportion of retarded persons who could be expected to learn to add and subtract, use public transportation, drive, and have a regular job, women tended to be significantly more "conservative" than men.

Gottlieb and Corman (1975) administered many of Gottwald's questions to 450 adults, of whom 57% were female. These investigators found that well educated females expressed significantly more favorable attitudes than males with similar education on a factor representing positive stereotype toward the mentally retarded.

It was the contention of the present investigator that black females seemed to have significantly more accepting attitudes toward the mentally retarded than black males because, for some uncontrolled reason, females were generally more knowledgeable of matters pertaining to mental retardation.

Differences in male and female attitudes found in this study, might also be explained by Mischel's (1972) hypothesis that females, by virtue of their prescribed sex roles, have a need to be nurturant,
or to avoid an appearance of non-nurturance in their attitudes and overt behaviors toward mentally retarded individuals.

It also seemed plausible to assume that since females, more than males, have been found to exhibit behaviors which are socially desirable (Crowne and Marlowe, 1964), they (black females) may have been prone to tolerate or accept mentally retarded individuals so as to maintain the aura of presenting a socially acceptable facade.

Effects of Academic Exposure on Populations:

After determining what northern, southern and southwestern black Ss' attitude was toward mental retardation, it was hypothesized (null hypothesis three) that academic exposure would not cause a significantly positive attitude in Ss from the three geographical regions.

Since the triple classification analysis of variance indicated that academic exposure (prob. > F of .0001) affected attitude change, the present investigator was further interested in determining if academic exposure was the sole treatment causing attitude change or if other extraneous variables could have possibly produced effects confounded with the effects of the experimental stimulus (academic exposure).

Having eliminated all rival hypotheses, (namely that extraneous variables, not academic exposure, had caused significant attitude changes), both full experimental and experimental group means were then compared with full control and control group means, as prescribed by the Tukey's method of multiple comparisons. Within every population considered, significant mean differences were evident. No significant differences were found, however, within any population when full
The experimental groups (groups 1) were compared with experimental groups (groups 3), and no significant differences were found when full control groups (groups 2) were compared with control group means (groups 4). Therefore, null hypothesis three was rejected, and its alternative hypothesis, that academic exposure did cause a significantly positive attitude change, was accepted.

Conclusions. Since all experimental group Ss seemingly made significant attitude changes within every population examined in this study, the present investigator sought to explain these changes in terms of credible attitude change theories that had generated the most empirical support. Those theories (discussed in the tone of Kiesler et al, 1969) were: stimulus-response and cognitive dissonance.

In Stimulus-Response theory it was assumed that attitudes, like other habits, tended to persist until the Ss underwent the new learning experience (academic exposure). Exposure to the persuasive communication (academic exposure materials) successfully induced the Ss to accept a new attitude, and thus, constituted a learning experience in which new verbal habits were acquired.

The "recommended attitude" which the present investigator (communicator) presented in his communication was one of the key elements in the attitude learning situation. The communicator, in actuality, presented a stimulus which evoked "answer responses" in the Ss.

When exposed to the recommended attitude, Ss were assumed to have reacted with at least two groups of distinct responses. Subjects thought of their own answers to the (MRGS-SE) statement, and also
the answers suggested by the communicator. The first group of responses resulted from the previously established verbal habits constituting the Ss original opinion; the second group of responses were assumed to have resulted from a general aspect of behavior, namely, the acquired tendency to repeat to oneself communications to which one is attending. Hence, a major effect of the persuasive communication laid in stimulating the Ss to think both of their initial attitude and the new attitude recommended in the communication.

"Incentive" was another important variable in the Ss attitude learning (i.e., attitude change) process. It was assumed that acceptance was contingent upon incentives, and that in order to change Ss' attitudes it was necessary to create greater incentives for making new implicit responses than for making the old ones. It was not sufficient that responses be learned by subjects - that Ss understood or were capable of making attitude responses to certain stimuli. It was also necessary that Ss had some motivation for choosing the particular responses to the (MROS-SF) attitude statement in preference to other available responses. In the present study, a major basis for Ss acceptance of the recommended attitude was provided by arguments and reasons (presented in academic exposure material) which, according to the Ss own thinking habits, constituted rational or logical support for the conclusions (Kiesler et al 1969, pp. 104-06).

Cognitive Dissonance theory was concerned with the relations among Ss' "cognitive elements" and the consequences when their elements were inconsistent with one another. In the present study, cognitive elements were defined as bits of knowledge, or opinions or beliefs
about mental retardation. Thus, two cognitive elements for Ss might have been: "The knowledge that they had somewhat of a negative attitude toward mentally retarded individuals" and "The knowledge (after experimental treatment) that most mentally retarded individuals were not different from other persons in their community." These two cognitive elements were logically (or psychologically) inconsistent for most Ss and represented a source of dissonance.

The existence of dissonance created psychological tension or discomfort among the Ss and consequently motivated them to reduce the dissonance and achieve consonance.

At least three theoretical ways were available for the Ss reduction in dissonance: I) reducing the importance of the dissonance elements, by adding consonant elements, or by changing one of the dissonant elements so that it was no longer inconsistent with the others. Since the magnitude of the Ss dissonance was dependent on the importance (as determined by each subject) of the elements and the number of consonant and dissonant elements, any of these methods should have reduced the amount of dissonance. In the present study, subjects seemingly added consonant elements or/and changed one of the dissonant elements which, subsequently, led to their attitude change toward mental retardation (Kiesler et al., 1969, pp. 191-99.).

Comparison of Populations - After Experimental Treatment

In null hypothesis four, it was postulated that after all black Ss residing in the north, south, and southwest regions of this country had undergone the experimental treatment (academic exposure),
there would be no significant difference between their level of accepting attitudes toward mental retardation.

Since the triple classification of analysis of variance had already indicated in hypothesis three that academic exposure contributed to significant variance, or mean differences, Tukey's method of multiple comparisons was employed to specify exactly where these mean differences were present. Just as in hypothesis one (before academic exposure) the southern population continued to have a significantly \((p < 0.01)\) higher level of accepting attitude than the northern population. Unlike the finding in hypothesis one, the southwest population was no longer significantly different from the northern population. Non-significant mean differences were also found between the south and southwest populations. Null hypothesis four was therefore partially rejected and partially retained.

Conclusions. Even after being academically exposed to mental retardation, the northern Ss (urban, middle-class) were seemingly less persuaded than the other two populations, to change their attitude. It might have been that the northern Ss had a more tacit understanding that contacts in large cities are all too often impersonal, superficial, segmental and transitory. That size, density, and heterogeneity are urban characteristics that would typically operated in the mentally retarded persons' disfavor, just as these characteristics have operated to the disfavor of other neglected persons in the general society who are not considered to be retarded. The northern Ss might have also viewed the building of group homes and training workshop centers for
the mental retarded, as another form of social welfare to be financed by the already heavily taxed urban, middle-class.

Perhaps the black southern Ss (predominantly rural residents of Mississippi) were convinced, after the experimental treatment, that the natural and social demands of their basically agricultural communities were not so demanding that mentally retarded persons would be unable to satisfactorily adjust. The southern Ss may have also continued to feel that common - neglected individuals of society - link with the mentally retarded. This common link, coupled with newly acquired knowledge from the experimental treatment, possibly lead to higher accepting attitudes.

Comparison of Sex Differences - After Experimental Treatment

In null hypothesis five, it was postulated that the experimental treatment, would cause a more significantly positive attitude change among the black female Ss than among the black male Ss.

Since in hypothesis two, the triple classification analysis of variance had already indicated that sex possibly contributed to variance, the T-method of multiple comparisons was used to compare male group 4 means (posttest only) with male group 1 means (pretest, treatment, posttest), and female group 4 means with female group 1 means. This procedure provided a view of the attitudinal differences of Ss before and after they had undergone the treatment variable (academic exposure). Black males within each separate population seemed to have made a more significantly positive attitude change than their respective females as a result of the experimental treatment (academic exposure). Null hypothesis five was consequently rejected.
Conclusions. One possible explanation as to why black females had less significantly positive attitude changes than black males might have been that black females were more committed (resistance to change of cognitions) than black males to their initial position since their (females) initial position was seemingly based on considerably more knowledge and less lack of confusion about the characteristics and behaviors typically imputed to individuals labeled as being mentally retarded.

Black males, on the other hand, were possibly more socially ambivalent (Lew, 1973); that is, their initial positions suggested patterns of inconsistency and vacillations in sentiments toward the mentally retarded and was seemingly accompanied by a vagueness and uncertainty as to the nature of their status and role. Hence, in their "mixed stance" sentiments of acceptance and rejection, they were accordingly less committed than the females.

Classical identification of black male Ss with the present investigator (communicator) might also serve as a reason why there was significantly more attitude change among black males than among black females. Since the present investigator was introduced as a doctoral candidate (high prestige) and was of the same sex, race, and approximately the same age (high similarity) as the black male Ss, it seems reasonably possible that the black males would adopt behaviors and attitudes that would, perhaps to an extent, enhance their own self-image. Perhaps the present investigator was perceived as being an attractive object who occupied a role desired by the black males.
who possessed those characteristics that they (black male Ss) lacked - such as control in a situation (experimental sessions) in which they were relatively helpless, or direction in a situation in which they were disoriented.

**Implication of The Study**

The results of this study suggest that if society were to immediately remove mentally retarded persons from institutions and placed them in rural black lower class communities in the south, or to a lesser degree, southwest regions of this country, the mentally retarded would probably experience less community problems than many presently must undergo. Surely, the study implied that less community problems would result, than if the deinstitutionalized mentally retarded were placed in urban, black middle class, northern communities. Despite these findings, the present investigator did not advocate the former as oppose to the latter. For, the most important implications seems to have been that, with a minimal amount of time, energy, and resources, the attitudes of blacks, in at least three geographical regions of this country, can be significantly changed to a more positive level.

As the large metropolitan inner-cities become increasingly black, and so-called "white flight" becomes more prevalent, it seems plausible to assume that inner-city group home residents will have their lifestyles affected, to an incalculable extent, by the attitudes of inner-city blacks. If group home residents are to use public transportation and work in low status and minimum wage occupations, their frequent contacts with blacks are inevitable. Thus, there will
be an ever pressing need to academically expose urban blacks to the phenomena of mental retardation.

Indeed, massive attempts at changing blacks' attitudes toward mental retardation would be met with some degree of difficulty. As Cohen has succinctly pointed out:

Another problem is the skepticism of the minority groups members because of what they view as the unfulfilled promises that have been made to them by governmental and voluntary agencies as well as community mental health groups who encouraged community participation and then reacted defensively when control became the central issue. Their anger at governmental institutions, in general, inhibits attempts at cooperative and collaborative arrangements (Cohen, 1975, p. 415).

However, this study has shown that significant attitude changes among blacks is possible, especially if the communicator is of the same race, sex, approximately the same age, and has high prestige or social status.

Another important implication highlighted by findings in this study was that of preparation for future black teachers and mental health workers. According to data in Table 2, approximately fifty-five percent of the black subjects who participated in this study, stated they planned to enter one and/or both of these professions. The question then becomes, what kinds of behaviors (attitudes) would these future black professionals have adopted and demonstrated toward the mentally retarded if they had not been academically exposed?

Studies have shown that regular class teachers generally have negative attitude on the topic (Combs and Harper, 1972), that length of ex-
perience in teaching the regular grades either does not promote positive changes in attitudes (Alper and Rotish, 1972) or else results in more unfavorable attitudes (Shotel, Inno, and McGettigan, 1972). Given these findings, serious attempts will have to be made by black higher learning institutions to develop training programs, workshops, seminars, or at least briefly academically expose their future black teachers to mental retardation subject matter. Although the extent to which teacher expectancies affect retarded students' performance is open to considerable debate (MacMillan, Jones, and Alsia, 1974), it is safe to assume that teachers' attitudes may be transmitted to the student and that these, in turn, will, at the very least, influence his social status among his peers (Gottlieb, 1975).

Limitations of the Study

1. **Limitations related to the subjects included in the study.** Critics of contemporary psychology frequently remark that we have a "psychology of the college sophomore with occasional excursions to the high school student" (Kiesler et al, 1969, p. 68). This study was perhaps no exception, in that black college freshmen (N = 786) were used in all populations considered. Because the study was primarily concerned with the effects intervening variables would have on attitudes, this kind of captive audience with short term commitment was necessary.

   The present investigator assumed that an academic classification of freshman implied that the students had not previously been exposed to any psychological experimentation; therefore, the
study was not particularly vulnerable to sophisticated students who had prior knowledge about the shenanigans of psychologists. Nevertheless, the sampling procedure limits the interpretations of the findings within the context of the defined populations of black students.

2. Limitations related to the measurement of attitudinal factors. As the study proceeded, it became increasingly more apparent that the delineation of attitude as a theoretical construct was comprehensive and nebulous, since it was accepted in the definition (Chapter 1) that attitude measurement involved the determination of the subjects' cognitive, affective, and behavioral propensities toward particular attitudinal subjects or objects. Typically, there are so many uncontrollable factors that may affect attitudes, its empirically feasible to maintain that this study could never predict the "actual" attitudes of subjects. This study could only possibly predict "measurements" of attitudes, and any imprecision (low reliability) in the study's measuring technique — careless respondents, ambiguous MMOS—SF items, or what have you, lowered the study's predictive precision.

Recommendations for Further Research

Mental retardation is not simply going to disappear in the foreseeable future, even if research efforts meet our most fanciful expectations (Rosen, Clark, and Kivitz, 1976). Nevertheless, the challenge remains, as it has always been, to advance our knowledge
and understanding of describing, measuring, and making inferences about behavior (attitude) as it related to the phenomena — mental retardation. With this notion in mind, the following suggestions for further research were recommended:

1. Replication of this study with specific cluster samples — local black community organizations such as the Links, NAACPers, Masons, and Black Panthers. Other specific cluster samples might consist of certain black groups involved in the education and rehabilitation of the mentally retarded — black ward attendants, nurses and mental health specialists.

2. Replication of this study with various minority groups — Chinese-Americans, Indians, Puerto Ricans, Cubans, Latinos, and others.

3. Longitudinal studies that incorporate delayed posttesting and considers the effects of brief academic exposure on attitudes after an extended period of time.

4. Studies that examine other treatment variables (i.e. field trips to institutions for the mentally retarded; direct-contact experiences; etc) and their effects on blacks' attitudes toward mental retardation.

5. Studies that identify the exact variables in various training programs (for example, in-service training
programs for black communities, special education programs, graduate school) which facilitate the development of more positive attitudes toward mental retardation.

6. Investigations concerned with how blacks' attitudes affect mentally retarded persons and/or the manner in which the mentally retarded affectively internalizes blacks' attitudes.

7. Research that examines the relationship between proximity to the mentally retarded and blacks' attitudes toward them. The majority of evidence (using white subjects) indicates that proximity is associated with increased rejection of mentally retarded individuals (Gottlieb, 1975). Will similar results be found among black populations?

8. Studies that consider the kinds of behaviors that mentally retarded persons display in black communities that are responsible for attitudes toward them. In the public school, there's evidence suggesting that retarded children are rejected because of academic proficiency (Gottlieb, 1974) and antisocial, aggressive behavior (Baldwin, 1958). But, why is she/he rejected after leaving the academic setting and enters black communities?

9. Investigations that place greater emphasis on whether blacks' expressed attitudes represent an index or are
manifest in actual (overt) behavior toward mentally retarded people. Will black persons who express positive attitudes actually behave differently toward the mentally retarded than black persons who express negative attitudes?

10. More research that identifies the most fruitful mechanism whereby mass media improves blacks' attitudes toward the mentally retarded. Few radio and television programs accurately portrayed the plight of the mentally retarded; quite often the media engender attitudes of hopelessness and the image of incurability for all the retarded (Cohen, 1977).

11. Finally, attitude still lacks a unified theoretical formulation which can serve as a basis for more specific and definitive research. There also appears to be a pressing need to develop more reliable, multifactorial instruments. Then, researchers will be better able to generalize findings and establish more definite relationships between varied aspects of overt behavior and attitudes.
APPENDIX A

Mental Retardation Opinion Scale (Allen and Foshee, 1966)
APPENDIX C

Sartin's (1964) Series of Two Lectures (Revised)
Introduction

The term "mental retardation" has had many meanings. Many people think of it as meaning an illness, much like tuberculosis, a contagious disease. However, mental retardation is not an illness, nor is it contagious; it is a condition. The term "mental retardation" is a general, an umbrella-like term which encompasses all degrees of retarded mental development. The term may indicate to us that a child is intellectually slow, but it does not tell us how slow the child is, nor what his other characteristics will be.

The Trainable or Severely Retarded

The first group of retarded children which we shall discuss are referred to as the trainable retarded, or the severely retarded. In the literature you will often find these terms used interchangeably. This group of children have, until recently, been excluded from the public school programs because they were considered to be uneducable in terms of the usual curriculum of the public schools. They cannot learn the usual academic skills, such as reading, to an extent that these skills will ever become useful tools. This group of children is increasingly becoming the responsibility of public education, however, due to the passage of mandatory or permissive legislation by the various state legislatures. Even though we currently will find classes within the public schools, these children, nevertheless, continue to be thought of as trainable, rather than educable children.

This group of children, in IQ terms, has the lowest range of
IQ scores of all the intellectually retarded children. They generally are thought of as having IQs below 50. In addition, they are said to be uneducable, as far as useful academic skills are concerned, and to require supervision and care throughout their lives.

The characteristics of the trainable mentally retarded child often include the following:

1. He is capable of eventually learning self-care in dressing, undressing, eating, toileting, keeping clean, and in other necessary skills which will make him independent of his parents in the regular routine of living.

2. He is capable of learning to get along in the family and in the immediate neighborhood by learning to share, to respect property rights, and in general to cooperate with his family or with the neighbors.

3. He is capable of learning to assist in chores around the house or in doing a routine task for some remuneration in a sheltered environment and under supervision.

4. His rate of mental development is between one-quarter and one-half that of an average child.

5. He is not capable of learning academic skills such as reading and arithmetic beyond the rote of learning of some words or simple numbers.

6. His speech and language will be distinctly limited.

7. He can eventually learn to protect himself from common dangers.

8. He will require some care, supervision, and economic support throughout his life. (Kirk et al, 1958, p. 10).

It is among this group of children, the trainable or severely retarded, that we find most of the physical anomalies, those who tend to "look retarded." Most of this group of children are made up of what is called the clinical types of retardation: mongolism, cretinism, hydrocephaly, microcephaly, etc. These are the children who are usually, at least partially, diagnosed on the basis of the physical
symptoms which the child presents. This group also is made up largely of what you probably know as idiots and imbeciles. We will not be using these terms often, however, because for purposes of education and/or training the terms do not tell us as much about the child as we formerly thought they did. This is not to say that the terms are no longer used, but that they are no longer used in an education-oriented situation.

That group of mentally deficient children who are diagnosed as mongoloids tend to resemble each other more than they resemble their blood relations. The term "mongolism" was given to this group of mentally retarded children because the slanting eyes of the children resembled the slanting eyes of the mongolian peoples. The mongoloid child is both mentally and physically defective from birth. The child's physical appearance usually has the unmistakable signs of mongolism immediately at the time of delivery. The eyes are slanted and almond shaped and usually have more than the normal distance between them; the face is flat and broad, with round cheeks, large and thick lips, and a tongue which is long, and because it is too large for the mouth, habitually protrudes. The stature tends to be dwarfish, with the greatest growth retardation occurring during the first three years. A child of eight or nine years of age usually resembles a child of four or five as far as height is concerned.

A majority of mongols are said to be lively, observant and rather superficially bright. They are good natured, easily amused, and exhibit a smiling face. The average mental age, from a number of studies, appears to be between three and four, although individual IQs
have been reported up into the educable mentally retarded range. At any rate the educational prognosis for the mongoloid children is discouraging.

The average age at death was formerly placed at about 12.5 years to 14.5 years, the early deaths primarily being due to their extreme susceptibility to upper respiratory infections. However, since the advent of the "miracle drugs" the authorities believe that their average age at death approximates that of the general population.

Scientists have been searching for many years for the cause of mongolism. Recently some evidence has been presented which indicates that a possible cause of the condition is the possession of an extra chromosome. However, this concept of causation has not been accepted fully by authorities, possibly because many questions concerning the condition have yet to be answered, and this concept raises even more questions.

A lack of development or atrophy of the thyroid gland prior to birth results in a low grade of mental deficiency known as cretinism. Cretinism is said to be much more rare than mongolism, which constitutes the largest group of trainable or severely retarded individuals. In cretinism, the child may appear normal at birth and may continue to appear normal as long as he is nursing, but only if the mother's thyroid gland is functioning. When the child ceases to nurse, the cretin symptoms then become gradually apparent.

Unlike the mongoloid, not all physical and mental characteristics or cretinism are of equal prominence in all cases, because the degree of functional activity of the thyroid gland may vary from
complete non-function through the various degrees of functional ability. However, the general characteristics of the fully developed cretin consist of a bloated looking, dwarfish appearing body (commonly about three to four feet tall), with a large, long head. A cretin of eight to ten years may appear to be a child of two or three in physical appearance. The typical cretin who has not been treated, or who failed to profit from treatment usually makes little educational progress, although they can often be trained to acquire useful habits of response and to conform to a simple routine. The intellectual level of cretins will likely be much lower than the mongoloid, and if untreated, will remain at the mentally deficient intellectual level, and will require care and supervision during their life-span.

The condition known as hydrocephalus or "water on the brain", is caused by an accumulation of the spinal fluid, which cannot or is not assimilated by the body. Thus, pressure is placed on the brain, causing deterioration, and pressure is exerted against the skull, causing an enlargement of the head. Some children who are born with hydrocephalus receive little damage to the brain, because for some reason the spinal fluid is assimilated and, therefore, further damage to the brain is prevented. For other hydrocephalic children, surgery may assist by removing a block, or by providing an access for the fluid. The level or degree of intelligence will, of course, depend upon the degree of brain damage before relief measures were instituted.

Unlike the other conditions which we have mentioned, hydrocephalics differ rather markedly in mental ability. Many of them are normal or bright, and remain so if the condition is cleared before
permanent damage has been done to the nerve cells. However, unless the condition either clears spontaneously or responds to surgery, it is likely to deteriorate until the child dies, usually within three or four years. The educational prognosis for hydrocephalics will as already noted, vary greatly, depending upon the amount of cerebral destruction. Of course, those hydrocephalics who have been successfully treated before permanent damage has occurred to the brain can make normal educational progress to the extent of their ability.

These illustrative types of mental retardation do not constitute the entire trainable or severely retarded population, however. In other cases the severe mental retardation may be caused by brain injury either before, during, or following birth. There are many, many causes of brain injury during these periods, which range from an inadequate supply of oxygen, a prolonged and difficult labor, breech presentation, improper use of forceps during delivery, a case of rebella in the mother during the early months of pregnancy, the Rh blood factor, and many others. Though mental retardation can be traced to over 200 different causes, it is an affliction or a condition, not some witch’s curse. The birth of a mentally retarded child does not imply some kind of social stigma, nor is it something to be hidden and ashamed of. Mentally retarded children are born to the healthiest and the wealthiest, to the brilliant as well as to the meek. Although we often tend to associate retardation with the lower socioeconomic and cultural levels of the community, this is not true with the mentally retarded children. They are found about equally distributed through all segments of our society (Wallin, 1949).
Though trainable or severely retarded persons, as well as educable or mildly retarded persons, and slow learners, may also be or become mentally ill, there is no specific or inherent relationship between these divisions of mental retardation and mental illness. Those persons who are mentally ill or emotionally ill are thought of as being ill or sick, while those persons who are classified as mentally retarded are not thought of as being ill or sick. The mentally ill may recover or become cured, but those persons whom we classify as mentally retarded do not recover, nor are they cured, nor do they become average or normal.

Neither do scientists believe that any of the degrees of mental retardation are inherited, at least in the sense that the child has retarded ancestors or that retardation runs in the family. What they really mean is somewhat complicated, but simply stated, they essentially mean that by chance some combination of the genes of both the mother and father causes a defect in that particular child, so a retarded child or an extremely bright child can be born to almost any parent. When this is better understood, people will be much less likely to give undue credit to the parents of the bright children, and they will have much more understanding for the parents of retarded children. Certainly no mother or father should feel guilty or blame himself – nor each other – because a child of theirs is retarded.

It would, then, logically follow from the above descriptions of trainable or severely retarded children that they are not capable of learning in classes for educable or mildly retarded children. However, as already pointed out, the trainable or severely retarded
children do have the potentialities for learning self care, adjustment to the home or neighborhood, and economic usefulness in the home, sheltered workshop, or in an institution. It is not true that trainable or severely retarded children cannot learn, cannot be sociable, and cannot contribute to society. They do have feelings and emotions, hopes and dreams, and affections as well as dislikes. They should, of course, not be shunned and ridiculed, or treated as outcasts. They can and should be helped to contribute their bit to society, to learn and achieve at their own level, and find acceptance for themselves as individuals.

What, then, are the provisions which our society makes for this group of children? For many years, since the inception of the institutional concept, these children were recommended for placement in institutions, often at birth. However, if we can judge from the long waiting lists maintained by most institutions, society has refused to build sufficient numbers of institutions for the trainable or severely retarded child. Then, too many parents simply do not want to send their children to institutions, but prefer, rather, to take care of their own children in the community. These situations, along with other factors, of course, caused parents to organize and to seek local community provisions for their children. At first these parent organizations provided, on their own, for group training activities, hiring the teacher, providing the building space, and providing the monetary support. At the same time they attempted to make the public aware of the needs of this group of children. Because this awareness did not come, or was slow in coming, the parents groups began to clamor
for public financial support for the training programs, arguing that as taxpayers they helped to support the public schools and so should not be forced to look elsewhere for training for their children. This argument apparently favorably impressed the various state legislatures, for approximately three-fourths of the states have now either passed mandatory or permissive legislation concerning the training of the mentally deficient in the public schools. Although educators are far from agreement that the public school is the proper agency for training these children, the public schools are responsible for their training under the laws of a majority of the states.

However, the results of several studies would suggest that public school training is only a partial answer for this group of children. These studies have concluded that children with IQs below about 50 will derive relatively little benefit from such programs, and for those with IQs about 70, despite the fact that some improvements will occur in habit development and social skills, the overall problem of the trainable or severely retarded child is not resolved. Custodial care continues to remain a necessity when we consider the fact that this group of children will always require supervision and care. A total solution must involve total life planning for these children—a type of planning wherein the public schools are limited. They are limited simply because our concept of education in this country is a concept that also includes a termination of the control of the school at around the age of 18. It would appear to be obvious therefore, that a training program within the public school is not the answer to this type of problem. Who or what agency will assume the responsibility
for the children after they have reached the age of 18? This problem has caused little concern on the part of those who deal with these children. The parents fail to realize that they will die eventually and the care of the trainable or severely retarded child must pass on to some one or some agency. However, this is a problem which even most of the parents have failed to face. At this time there has yet to be devised a feasible and adequate program providing for the total care and training for these children. The establishment of training programs for such children is really still in the infancy stage and scientific inquiry has not yet reached or approached the stage of practical application. In brief, we appear to be approaching the problem in a hit-or-miss fashion, experimenting as we go, and have not arrived at anything like a solution at this time.

The Educable or Mildly Retarded Child

The educable or mildly retarded children are, as the descriptive label implies, educable. They can learn the basic academic essentials, such as reading, writing and arithmetic. In IQ terms, this group of children have scores within the general range 50-75. They do not require care and supervision to the extent that the trainable or severely retarded children require, but rather it is assumed that the educable or mildly retarded children can become independent, vocationally as well as socially. We would expect that they would grow up to get a job and hold it, participate in community activities, marry and have children, and in general to become a contributing member of society. It is true that these children will probably never set the
world on fire with their achievements or contributions to society, but with the benefit of a special curriculum the majority of this group should be able to be self-supporting, to manage their own affairs, and to participate on their level in community affairs.

In general, the educable or mildly retarded child is said to have the following characteristics:

1. He is able to learn second to fourth grade subject matter by the age of 16.

2. He does not begin to learn to read or understand formal arithmetic until some time between nine and twelve years of age.

3. His rate of mental development is from one-half to three-fourths the rate of an average child.

4. His progress in school is likewise about one-half to three-fourths the rate of the average child. That is, after he learns to read, for example, he does not progress year by year, but only about half a year each year. If he begins to learn to read at the age of ten, he can probably gain three or four grades in the next six years.

5. Although his vocabulary will be limited, his speech and language will be adequate in most ordinary situations.

6. In most instances he can learn to get along with people.

7. He can learn to do unskilled or semiskilled work and can usually support himself at the adult level (Kirk et al, 1958, p. 9).

In contrast with the trainable or severely retarded, the educable or mildly retarded children do not "look retarded", their physical appearance being distributed as is the general population. He has no particular physical characteristics that would distinguish him from the normal or over bright child. His physical development is comparatively normal; his height and weight are relatively normal, as are his motor skills and motor development.
in every way except intellectually. He must be diagnosed in terms of his intellectual behavior, for this is the only general area in which he is handicapped. We may become aware that the child is mentally retarded when we hear him answer questions or describe various things, but these are usually considered to be intellectual factors.

This group of children quite often get into trouble, inadvertently, with school authorities and other adults because they do not look so physically normal. Since they do not look any different than other children, the usual immediate reaction of the adult is to react negatively because the children are dumb and are not "acting their age," instead of rousing feelings of sympathy and understanding. This is probably due to our tendency to associate certain behavior and performance with a particular age level, and when the educable or mildly retarded child fail to come up to the adult's preconceived idea of "how he should act" or on what level he should behave, the adult cannot understand and easily and quickly becomes disgusted with the child.

The educable or mildly retarded children are not usually recognized as being retarded at the pre-school level. Although they may be somewhat slow about talking, and sometimes walking, the delay is not usually great enough to cause concern on the part of the parents. Most of the educable or mildly retarded children become known as mentally retarded only after they have entered the school situation and begin to fail the academic curriculum. These children are not ready to begin learning to read and write when they enter school at the chronological age of six. But the society expect children to learn to read to write
in the first year of school as evidenced by the usual question directed to first grade children, "Have you learned to read and write yet?" We expect all children to respond to the instruction, and when the educable or mildly retarded child cannot learn or understand what is going on, he is relegated to coloring (if he can color at this point), sitting quietly, or helping with the housekeeping duties in the classroom. His play interests, on the playground, are not a level with his schoolmates either, so he tends to find nothing except failure experiences in his school career. He is likely to come to school from a low socio-economic area of the community and does not wear the same type of clothes that are worn by the other children, or have the same "good" manners, so that the usual school situation is perceived by this child as a rather negative, rejecting type of situation.

Many teachers have described the educable or mildly retarded child as having a short attention span, a low frustration tolerance level, and to lack interest and concentration. However, these traits are not any more characteristic of the educable or mildly retarded child than they are of the normal or bright child under similar circumstances. These traits are related to the situations in which the children are placed; they are the by-products of the differences between what we expect of these children and their limited ability to cope with the requirements which we set up. We expect the educable or mildly retarded children to respond just like other children to materials which he cannot understand or learn, so that school becomes an unbroken series of failure experiences. I would hazard a guess that
under similar circumstances most of us would very shortly begin to
demonstrate a short attention span, a low frustration tolerance level,
as well as a lack of interest and concentration.

The intellectual ability of educable or mildly retarded
children, like that of the general population, is thought of as ex­
tending over a continuum. He can learn, and generally speaking, his
learning follows the laws of learning which apply to everyone else.
He does learn at a slower rate, but he learns in much the same way
as other children. However, just because he is said to learn at a
slower rate does not mean that given time he will catch up with the
normal or bright child. The upper limits of his ability are limited;
he can learn at a slower rate to the upper limits of his own ability,
whatever that may be.

That the educable or mildly retarded child should learn is
no longer limited to manual skills, or the basketweaving approach.
Today we regard the educable or mildly retarded child as a person who
should be educated to play a role in society. We no longer accept
the "basketweaving" or "pot-holder" approach since this approach does
not aid the child in the business of living. The program wherein the
teacher concentrates on work that is essentially appealing to visitors,
the concentration on manners, or the program where the aim is to make
the children happy so they can enjoy themselves — these program concepts
no longer have a place in the education of the educable or mildly
retarded child.

Today the accepted general objectives are those advocated
by the Education Policies Commission, namely, 1) the objectives of
self-realization, 2) the objectives of human relationship, 3) the objectives of economic efficiency, and 4) the objectives of civic responsibility. The more specific aims for the educable or mildly retarded children usually include the following:

1. They should be educated to get along with their fellow men, i.e., they should develop social competency through numerous social experiences.

2. They should learn to participate in work for the purpose of earning their own living; i.e., they should develop occupational competence through efficient vocational guidance and training as a part of their school experiences.

3. They should develop emotional security and independence in the school and in the home through a good mental hygiene program.

4. They should develop habits of health and sanitation through a good program of health education.

5. They should learn the minimum essentials of the tool subjects, even though their academic limits are third to fifth grade.

6. They should learn to occupy themselves in wholesome leisure time activities through an educational program that teaches them to enjoy recreational and leisure time activities.

7. They should learn to become adequate members of a family and a home through an educational program that emphasizes home membership as a function of the curriculum.

8. They should learn to become adequate members of a community through a school program that emphasizes community participation (Kirk and Johnson, 1951).

For children with a mental age below six, the basic tool subjects (reading, writing, as we ordinarily think of them) are omitted. At this level we are interested in a series of readiness experiences, the development of social experiences, coordination, etc. We are also interested in developing the child's speech. Since educable or mildly retarded children do tend to have more speech problems than normal children, we can begin at this level and spend more time with helping
to correct his speech problems so that he will be able to enunciate
the sounds more accurately. We can spend time working with his
language development, and the other specific types of readiness ex-
periences which will prepare him for the time when the academic tool
skills will be introduced. After the child has a mental age above
six, we will then introduce reading, writing, number work, etc. In
the curriculum we will also include the training for occupational
adequacy. We will not attempt to train the child specifically for
a particular occupation, for the skill in which the child has been
trained may not be in demand by the time he is ready to make use of
it. Rather we will train rather generally so that he is fitted for
whatever job is available when he has need for it. In this genera-
lized instruction, we will be interested in work attitudes, the ability
to work with other people; the work habits, such as getting to work
on time, etc.; and the personal habits, such as cleanliness, which
would assist the child in getting and retaining a job.

Therefore, it is quite clear that the problems of the educable
or mildly retarded children are the problems of the public schools,
for depending on the presence or absence, as well as the adequacy or
inadequacy, of a program designed for this group of children, rests
the question on whether or not the educable or mildly retarded child
will be an independent and contributing citizen of the community, or
will become a burden on the community, either in the form of delinqui-
ency or in idleness and relief.
APPENDIX D

Personal Data Form
PERSONAL DATA FORM

(Please, place check in appropriate blank)

Classification: freshman ___ sophomore ___ junior ___ senior ___

Residency: resident of state ___ non-resident of state ___

Age: 17-20 ___ 21-23 ___ 24 and above ___

Sex: female ___ male ___

Race: black ___ white ___ other ___

When you graduate from college, do you plan to become a teacher or enter the mental health profession?

Yes ___ No ___

Your major area of study (please, write in) _______________________

Is your hometown (permanent residence) basically urban ___ or basically rural ___?
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