A COMPARATIVE STUDY OF ATTITUDES OF ELEMENTARY SCHOOL
TEACHERS TOWARD MENTALLY HANDICAPPED CHILDREN IN
SPARTANBURG COUNTY, SOUTH CAROLINA,
SCHOOL DISTRICT FIVE

by

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A DISSERTATION

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CHAPTER I

INTRODUCTION

Public enrollment in special education has increased in a number of public school systems during the last two decades, according to Mackie (1969). This integral part of the educational structure in the United States has over one-half of the nation's school districts maintaining their own special education programs. The number of teachers working directly with exceptional children has increased substantially between the years of 1946 and 1966. According to Mackie:

There are 82,000 teachers of exceptional children in local public schools and residential schools. This means that more than five times the number of special educators are employed today to work directly with exceptional children compared with two decades ago (Table 9, p. 15).

Efforts to alleviate teacher shortages in the field of special education have been improved through the Federal Government under Public Law 85-926 and its Amendments in Public Law 88-164, Title III. Public Law 91-230, Education of The Handicapped Act, according to Martin (1968), provide for the awarding and dissemination of grants to public/private and non-profit institutions of higher education, as well as to State education agencies to train teachers, supervisors, and researchers.
To support leadership training programs, Public Law 85-926 provided funds to sixteen institutions of higher education in 1960. In 1967, this program was expanded to include 227 colleges and universities which received federal funding toward preparing professional personnel in special education. Table 1 shows the growth of teacher education programs in special education as described by Heller (1968). One can see the great strides and growth under P.L. 85-926 by comparing the 243 institutions in 1967 which received professional preparational programs in special education with the 16 receiving support in 1960.

### TABLE 1

Growth of Program for the Preparation of Professional Personnel in the Education of Handicapped Children Under Public Law 85-926, as Amended

(Fiscal Years 1960-67)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Participating Institutions</th>
<th>Funds Obligated</th>
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<tbody>
<tr>
<td></td>
<td>Colleges and Universities</td>
<td>State Education Agencies</td>
</tr>
<tr>
<td>1960(a)</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>1961</td>
<td>18</td>
<td>41</td>
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<td>1962(b)</td>
<td>63</td>
<td>46</td>
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<td>1963</td>
<td>65</td>
<td>48</td>
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<tr>
<td>1964</td>
<td>154</td>
<td>50</td>
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<tr>
<td>1965</td>
<td>193</td>
<td>50</td>
</tr>
<tr>
<td>1966</td>
<td>221</td>
<td>54</td>
</tr>
<tr>
<td>1967</td>
<td>243</td>
<td>54</td>
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\(a\) Mentally retarded area only. Fiscal Years 1960 and 1961.

\(b\) Mentally retarded and deaf areas only. Fiscal years 1962 and 1963.
Caposella (1972) described the growth of all categories of the handicapped. His available data included the years 1968, 1969, 1970, 1971 and 1972. He reported as follows:

**TABLE 2**

Growth of Programs for the Preparation of Professional Personnel in the Education of Handicapped Children

*(Fiscal Years 1968-72)*

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Participating Institutions</th>
<th>Funds Obligated</th>
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<tr>
<td></td>
<td>Colleges and Universities</td>
<td>State Education Agencies</td>
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<tr>
<td>1968&lt;sup&gt;a&lt;/sup&gt;</td>
<td>249</td>
<td>54</td>
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<tr>
<td>1969&lt;sup&gt;a&lt;/sup&gt;</td>
<td>266</td>
<td>54</td>
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<tr>
<td>1970&lt;sup&gt;a&lt;/sup&gt;</td>
<td>292</td>
<td>54</td>
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<tr>
<td>1971&lt;sup&gt;a&lt;/sup&gt;</td>
<td>309</td>
<td>55</td>
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<tr>
<td>1972&lt;sup&gt;a&lt;/sup&gt;</td>
<td>400+</td>
<td>54</td>
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Between 1946 and 1966, American education has improved its condition to the extent that provisions are now available for pupils in special education to adapt into the mainstream of general education (Mackie, 1969). In order for these children to succeed in general education, positive attitudes toward the handicapped among general educators are needed. One frequently overlooked variable in placing handicapped children in regular education has been the attitude of the regular classroom teacher toward the handicapped child (Guthrey, 1971).
There appears to be a lack of abundant research directly related to teacher attitudes toward the handicapped; however, some professionals have published diversified research akin to this area. Brooks and Bransford (1972), while working with prospective teachers, found that early exposure experiences with exceptional children help to strengthen teacher education programs and foster favorable attitudes toward exceptional children.

Hall (1969) investigated the modification of university students' attitudes toward institutionalized mentally retarded. His research revealed, that if university students had never had personal contact, (seeing or touching) exposure to or orientation to the institutionalized mentally retarded, the university students would demonstrate negative attitudes toward the mentally retarded. Also, his research revealed that if university students were presented with an orientation to the institutionalized mentally retarded, exposure and personal contact, the university students would demonstrate favorable attitudes toward the mentally retarded. He contends that further research is necessary to provide answers to these problems and suggests more in-depth experiences are the prerequisites for shifting general attitudes toward a positive direction.

Nunnally's (1961) study concerning personal contact with the retarded found that a variety of reasons caused
attitudinal effects through personal contact with retarded children. He concluded that the nature of contact, situations used, and subjects involved helped produce various attitudinal changes toward the handicapped.

Rabinowitz and Rosenbaum (1959-60), in their studies on teaching experience and attitudes, found that teachers' attitudes are generally considered basic to their effective performance in the classroom. Their report was an attempt to measure changes in attitudes that accompany teaching experience through the Minnesota Teacher Attitude Inventory (MTAI). Basically, their results pointed out that changes in attitudes may indicate a realistic adaptation to the demands of classroom life.

Very few studies have addressed themselves to the teacher of the special class, his attitudes and expectations; yet, the teacher is likely to affect the child's behavior in many ways. Fine (1966-67) indicated that theory and research related to school placement of retarded children should include recognition of the nature of differences between regular and special class teachers. Fine's study of individual differences with regular and special education teacher attitudes toward the educable mentally retarded revealed that (1) special class teachers place greater emphasis on personal and social adjustments than do regular teachers, (2) special class teachers
appear less demanding than regular teachers, and (3) special classes may be understimulating the retarded child in the area of academic performance.

A study by Schmidt and Nelson (1969) also found a difference between special and regular classroom teachers attitudes in relation to cognitive and affective goals. They found that the special education teachers emphasized goals of personal and social adjustment for the child in the educative process, while the regular practicing classroom teachers emphasized general subject matter disciplines for the child in the educative process.

Badt (1957) used a questionnaire method to investigate attitudes of university students toward exceptional children. She concluded that different categories of exceptional children were found to have different social stimulus values to the respondents. Also, the attitudes toward a particular kind of exceptional child tended to be fairly consistent, both in various situations and among different respondents.

Jaffe (1967) attempted to ascertain if previous contact with the retarded effected the attitudes of high school seniors toward persons described as mentally retarded. His findings support the multi-dimensional concept of attitudes and suggest that contact is related to a cognitive dimension of attitude rather than an affective dimension.
Yuker's (1960) study concerning the physically handicapped found that personal contact was related to expressions of favorable attitudes. Cleland and Chambers (1959), while studying attitudes toward mentally retarded, found that a tour of an institution for the retarded produced both positive and negative expressions in students.

It is evident that there is a need to investigate attitudes of elementary school teachers toward the mentally handicapped in order to assure that some degree of success can be achieved by them in the regular classroom setting.

Statement of the Problem

The present study was designed to determine attitudes of elementary school teachers toward mentally handicapped children in Spartanburg County, South Carolina, School District Five. The study was done in an effort to provide better understanding of these attitudes and to aid in the development of more meaningful relationships between the regular classroom teacher and the mentally handicapped school-aged child. The hypothesis is that there is no significant relationship between elementary school teacher attitudes toward the mentally handicapped and certain background variables which are, years of experience, male and female, age, highest degree earned, number of semester hours earned in special education, racial groups, specific grades, type of school in which they teach, years of marriage, and number of children.
Purpose of the Study

This study will attempt to answer the following objectives:

Objectives:

1. Is there a significant relationship between elementary school teachers' attitudes toward the mentally handicapped and years of teaching experience?
2. Is there a significant relationship between male and female elementary school teachers' attitudes toward the mentally handicapped?
3. Is there a significant relationship between age of elementary school teachers' attitudes toward the mentally handicapped?
4. Is there a significant relationship between highest degrees earned between elementary school teachers' attitudes toward the mentally handicapped?
5. Is there a significant relationship between the number of semester hours earned in special education in elementary school teachers' attitudes toward the mentally handicapped?
6. Is there a significant relationship between racial groups and the elementary school teachers' attitude toward the mentally handicapped?
7. Is there a significant relationship between teachers who teach specific grades and their attitudes toward the mentally handicapped?
8. Is there a significant relationship between elementary school teachers' attitudes toward the mentally handicapped and the type of school in which they teach? 

9. Is there a significant difference between elementary school teachers' attitudes toward the mentally handicapped and their years of marriage? 

10. Is there a significant relationship between elementary school teachers' attitudes toward the mentally handicapped and the number of children of their own? 

Significance of the Study

This investigation was conducted to ascertain teacher attitudes toward the mentally handicapped. A comparison of these teacher attitudes was made in order to ascertain whether there was a significant relationship. 

Some investigations have been done in the related areas of teacher attitudes; however, most of these studies have not been directed toward the relationship of teacher attitudes toward the mentally handicapped. 

The need for such studies is important and their findings may provide beneficial information to the educator who will have to cope with the mentally handicapped. The establishment of good teacher-pupil relationships hinges upon the knowledge of such attitudes and the understanding displayed by the teacher toward the mentally handicapped. Only through such a relationship can the teacher hope to accept the mentally handicapped
and integrate him into the general mainstream of the educational program.

Definition of Terms

Significant terms used in the study are defined as follows:

Attitude.—Attitude as defined by Krech, Crutchfield, and Ballachey (1962) is: "An enduring system of positive or negative evaluations, emotional feedlings, and pro or con action tendencies with respect to a social object (p. 177)."

Attitude Scales.—Attitude Scales are an assessment of the degree of effect that individuals may associate with some psychological or social object. The Measurement of Attitudes Toward Disabled Persons scale designed by Harold E. Yuker, J. R. Block, and Janet H. Younng was modified to measure the attitudes of elementary school teachers.

Mental Retardation.—Heber's (1961) definition, accepted by the American Association of Mental Deficiency, is stated as:

The subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in one or more of the following: (1) maturation, (2) learning, and (3) social adjustment (p. 3).

Special Class.—Cruickshank (1967) defined the special class as a group of exceptional children usually of a particular classification and housed in a regular elementary or secondary school.
Exceptional Child.—Kirk (1962) has defined exceptional children as:

. . . those children who deviate from the average or normal children in mental, physical, or social characteristics to such an extent that they require a modification of school practices, or special educational services, in order to develop to their maximum capacity (pp. 4-5).

Mentally Handicapped.—The mentally handicapped are defined as those school age children who fall into the educable and trainable range as stated in Section 21-295 of the South Carolina Code as amended March 24, 1967 (Appendix D):

Educable mentally retarded.

Children of legal school age who, because of retarded mental growth, are incapable of being educated profitably and effectively through ordinary classroom instruction, but who may be expected to benefit from special education facilities designed to make them economically useful and socially adjusted.

Children whose intelligence quotient on an individual psychological examination (Stanford Binet or Wechsler Intelligence Scales) fell between 50 and 70 were designated as educable mentally retarded (Administrator's Guide to Programs for Exceptional Children, South Carolina Department of Education, 1968).

Trainable mentally handicapped children means children of legal school age whose mental capacity is below that of those considered educable, yet who may profit by a special type of training to the extent that they may become nearly self-sufficient and less burdensome to others.

Children whose intelligence quotient on an individual psychological examination (Stanford Binet or Wechsler
Intelligence Scales) fell between 25 and 50 were designated as trainable mentally retarded (Administrator's Guide to Programs for Exceptional Children, South Carolina Department of Education, 1968).

Scope and Limitations

An investigation of elementary school teachers' attitudes toward the mentally handicapped in a rural school district with a small number of children will provide additional information to educators for the purpose of establishing better attitudes with those students who have been labeled as "handicapped."

It was necessary to delimit the scope of the problem in order to keep the study manageable. The delimitations were as follows:

1. the State of South Carolina
2. public school program
3. Spartanburg County School District Five
4. elementary school teachers
5. testing at the end of the academic school year
6. test situations after the school day
CHAPTER II

REVIEW OF RELATED LITERATURE

The literature reviewed for this study was concerned with two areas of research: (a) nature of attitudes and (b) attitudinal measurement. These two areas form the research foundation for this investigation.

Nature of Attitudes

Allport (1935) investigated the modern concept of attitude in three areas: (1) in the experimental psychology of the late 19th century which employed such conceptual precursors to attitude as muscular set, task attitude, mental and motor attitudes, and determining tendencies, in its laboratory investigation of reaction-time, perception, memory, judgment, thought and volition; (2) in psychoanalysis, which emphasized the dynamic and unconscious basis of attitudes; and (3) in sociology, wherein attitudes came to be recognized as the psychological representations of societal and cultural influence.

Thomas and Znaniecki (1918), are credited with being the first to propose that social attitudes are the central task of social psychology, they were also the first to give a systematic priority to this concept. Not until
the 1940's, which began with the publication of Fromm's *Escape from Freedom* (1941) and evolved with the *Authoritarian Personality* (1950), did the relevance of social attitudes to personality theory become widely accepted (Rokeach, 1968).

The concept of attitude has always been plagued with ambiguity. Doob (1947) argues that attitude has no systematic status as a scientific construct and thus should be abandoned because of the difficulty in ascertaining what data to include and what to exclude as part of an attitude. Although few authors feel this concept should be abandoned, perhaps if continual use and subjection to continued critical analysis with the aim of giving it more precise conceptual and operational meaning.

Chein (1948) points out that educators should continually analyze the concept of attitude. The aim which is to give it more precise conceptual meaning. Chein writes: "... at stake is not the definition of the word, but the definition of a whole area of psychological inquiry (p. 187)."

Katz and Stotland (1959) argue cogently that:

Efforts to deal with the real world show our need for a concept more flexible and more covert than habit, more specifically oriented to social objects than personality traits, less global than value systems, more directive than beliefs, and more ideational than motive pattern (p. 466).

At this point there is a need to operationally explain the definition in order to give it more coherence.
Traditional beliefs toward definitions of an attitude have been diverse. Rokeach (1968) defines an attitude as a relative enduring organization of beliefs about an object or situation, not responding in some predisposed, preferential manner. Shaw and Wright (1967) characteristically describe attitudes as relative, stable, multidirectional, varying in scope, and relating toward a differential frame of reference.

Sherif and Sherif (1967) point out that "... attitude is a blanket term covering any old judgement or opinion that the individual renders." Thurstone (1946) takes the position that an attitude is "... the degree of positive or negative affect associated with psychological object."

Thurstone (1933) described a psychological object as any symbol, phrase, slogan, person, institution, ideal, or idea toward which people can differ with report to positive or negative affect. Generally, in the literature of psychology, the terms "affect" and "feeling" were used interchangeably.

Allport's (1935) definition has at least five dimensional aspects: (1) that of mental and neutral state; (2) of readiness to respond; (3) of organization; (4) of experience; (5) and of a directive or dynamic influence on behavior.

Smith, Bruner, and White (1956) define an attitude as a "predisposition to experience, to be motivated by,
and to act toward a class of objects in a predictable manner (p. 39).” According to Smith, Bruner, and White, the object of an attitude may be anything that exists within the life space of the individual or, more simply, anything that exists for the individual. Finally, these educators mention that object value refers to the affective tone of an attitude object, which is typically regarded as the defining characteristic of an attitude. They also assert that three types of functions are served by holding an opinion or attitude: object appraisal, social adjustment, and externalization. Object appraisal refers to the usefulness of an opinion in orientation of the individual to objects in the environment. The social adjustment function refers to an opinion's function in facilitating, maintaining, and disrupting social relationships. This function also aids in the mediation of self-other relationships.

Ballachey, Crutchfield and Krech (1962) believe that:

...the social actions of the individual reflect his attitudes—enduring system of positive or negative evaluations, emotional feelings, and pro or con action tendencies with respect to social objects. As the individual develops, his respect to the various objects in his world become organized into enduring systems called attitudes (p. 139).

Virtually all theorists argue that an attitude is a cluster of syndromes composed of related elements, and not a basic, irreducible element within the personality.
Most traditional theories contend that attitudes possess three components: a cognitive component, affective component, and a behavioral component. The cognitive component is one that holds varying degrees of certitude about validity. The affective component arouses and affects different intensities. This component centers around being a predisposition which must lead to some action.

Perhaps some mention should be directed toward the distinction between belief and attitude. Ballachey, Crutchfield and Krech (1948) view all attitudes as incorporating beliefs, but not all beliefs necessarily as part of attitudes. The definition departs widely in its distinction between belief and attitude, namely that beliefs have only cognitive and affective components. As Ballachey, Crutchfield and Krech define it, "... attitudes can be designated as whether 'pro' or 'anti' while beliefs are conceived of as 'neutral'."

There are several educators who feel that the distinction between belief and attitude is ambiguous and object to a conceptual differentiation. Osgood, Suci, and Tannenbaum (1957) and many others have shown that virtually any concept loads factorially on an evaluative dimension. The dimension which Katz and Stotland (1959) state operationally, differentiates the concept of attitude from that of belief, which "always includes cognitive and affective elements (p. 428)."
Fishbein and Raven (1962) originally distinguished attitude from belief by attributing the evaluative component to attitude and the cognitive component to belief. This distinction, however, is not maintained in later work. All beliefs are conceived to have evaluative as well as cognitive components (Fishbein, 1967). Fishbein mentions that the affective component will not be manifest under all conditions. Only when the belief is somehow challenged by the attitude object, by someone else or when the preferential action is somehow blocked it will manifest under all conditions. Fishbein does not assume that the positive or negative effect associated with a belief or attitude is necessarily directed toward the object of that belief or attitude. The affect may be directed toward other objects, individuals, or groups who agree or oppose with respect to the object. Thus the affect may arise from individual efforts to preserve the validity of the belief itself.

An attitude is defined simply as an organization of interrelated beliefs around a common object with aspects of the object at the focus of attention determined by the person involved. Newcomb, Turner, and Converse (1965) have put it well when they write:
The attitude concept seems to reflect quite faithfully the primary form in which past experience is summed, stored, and organized in the individual as he approaches any new situation (pp. 41-42).

There is a small group of theories which are primarily orientated toward types of attitudes and attitudinal change. These theories make the assumption that the first step in changing attitudes is knowing what type of attitude is trying to be changed. Some of these theories are discussed in the following paragraphs.

Rosenburg's Affective-Cognitive Consistency theory appeared in 1953. His theory accepts a definition of attitude as a pro or con affect toward an object or class of objects. Also, that such affective sets are connected with conclusions or beliefs, thus it is preferable to conceive attitudes as consisting of both affective cognitive components. Rosenberg's cognitions relate instrumentally attitude objects to other objects of affective significance. Consequently, attitudes consist of affects toward objects which are believed instrumentally related to other objects of affective significance.

Rosenberg (1960) maintains that attitudes have psychological structures and that relations exist between psychological events which make change interdependent. Thus a change in the affective component of the attitude structure should result in a change of cognitive components.
According to Rosenberg's consistency theory, attitude structure allows for prediction of the pro-con feelings toward an attitude object of affective significance and the perceived instrumental relations between these objects and the attitude object.

Directional change in consistency is a basis for Rosenberg's homeostatic of attitude dynamics. This is stated in three propositions:

1. When the affective and cognitive components of an attitude are mutually consistent, the attitude is in a stable state.
2. When these components are mutually inconsistent, to a degree that exceeds the individual's "tolerance limit" for such inconsistency, the attitude is in an unstable state.
3. In such an unstable state the attitude will undergo reorganizing activity until one of three possible outcomes is achieved. These outcomes are: (a) rejection of the communications, or other forces, that engendered the original inconsistency between affect and cognition and thus rendered the attitude unstable, i.e., restoration of the original stable and consistent attitude; (b) "fragmentation" of the attitude through the isolation from each other of the mutually inconsistent affective and cognitive components; (c) accommodation to the original inconsistency-producing change so that a new attitude, consistent with that change, is now stabilized, i.e., attitude change (1960c, p. 322).

Rosenberg asserts that rejection of influence attempt in general occurs if the attacked affective-cognitive structure allows the affective regulations of adaptive behavior. All attitude change and acquisition can be understood as resulting from one or both of these sequences. One sequence is cognitive change followed by affective change and vice-versa.
The concept of organization has structural dimensions described as organizational attitudes: (1) the varied beliefs contained within an attitude, (2) several attitudes within a more inclusive attitude system, or (3) all of man's beliefs, attitudes, and values within his total cognitive system. There are four variables: differentiation, centrality, specificity or generality, and breadth or narrowness. "Differentiation" refers to the degree of articulation of various parts within a whole. The concept of complexity or multi-complexity is used more or less synonymously with differentiation. Degree of differentiation is an index of correctness of information or knowledge possessed about the focus of the attitude. "Centrality," resistance to change, asserts relatively greater effects on other parts. This organizational variable is conceived to be within a central peripheral dimension of central, more salient, important parts. "Specificity or generality" refers to predictability of a belief based on knowledge of one belief or the verbal expression of a belief or attitude to nonverbal behavior. "Breadth or narrowness" of an attitude or a belief system refers to category width, total range or spectrum of relevant social reality actually represented not to the number of parts within the whole.

Zajonc (1954) refers to a conceptual arena around cognitive elements which is relevant to a given issue or attitude object. They describe a structured interview
technique as a means by which it is possible to map the conceptual arena in terms of the positive \( p \) = negative \( n \) and null \( 0 \) relations which exist among all possible parts of cognitive elements.

Contemporary theorists Smith, Bruner, and White (1956) developed a theory in conjunction with an extremely comprehensive clinical study of Russia which attempted to state the functions that opinions and attitudes serve for personality. These theorists contend that the object of an attitude may be anything that exists whether in the life space of an individual or not. They contend that, for the individual, attitude objects have various characteristics such as differentiation, salience, time perception, informational support, and object value. Differentiation relates to perceived complexity of the attitude object and salience to the extent of centrality of the object to the individual's everyday concerns. The time perspective of an attitude object is determined by the degree of transitory or permanent interest involved. Informational support also deals with whether the object is of transitory or long-term interest. Finally, object value refers to the affective tone of an attitude object. This is regarded as the defining characteristic of an attitude.

Katz (1960) developed a theory that in many respects is very similar to that of Smith, Bruner, and White (1956). Katz's theorizing draws heavily upon some
earlier work with Sarnoff (1954). According to Katz,

... attitudes include both the affective, or feeling core of liking or disliking and the cognitive, or belief elements which describe the object of the attitude, its characteristics, and its relations to other objects.

Attitudes follow different usage of the terms "attitude" and "belief." Katz also mentions that when attitudes are organized into a hierarchical structure, they form a value system. Like Smith, Bruner, and White (1956), Katz lists various dimensions of attitudes including such things as intensity, specificity or generality, differentiation, number and strength of linkages to a related value system, and relationship to overt behavior.

Katz also espouses a functional or motivational approach to attitudes. Katz explains:

Stated simply, the functional approach is the attempt to understand the reasons people hold the attitudes they do. The reasons, however, are at the level of psychological motivations and not of the accidents of external events and circumstances. Unless we know the psychological need which is met by the holding of an attitude we are in a poor position to predict when and how it will change (1960, p. 170).

Katz lists four functions that attitudes perform for the personality: the instrumental or adjustive, the ego—defensive, the value—expressive, and the knowledge functions. These four functions are described as follows:

1. The instrumental, adjustive, or utilitarian function upon which Jeremy Bentham and the utilitarian constructed their model of man. A modern expression of the approach can be found in behavioristic learning theory.
2. The ego-defensive function in which the person protects himself from acknowledging the basic truths about himself or the harsh realities in his external world. Freudian psychology and neo-Freudian thinking have been preoccupied with this type of motivation and its outcomes.

3. The value-expressive function in which the individual derives satisfactions from expressing attitudes appropriate to his personal values and to his concept of himself. This function is central to doctrines of ego psychology which stress the importance of self-expression, self-importance, self-development, and self-realization.

4. The knowledge function based upon the individual's need to give adequate structure to his universe. The search for meaning, the need to understand, the trend toward better organization of perceptions and beliefs to provide clarity and consistency for the individual, are other descriptions of this function. The development of principles about perceptual and cognitive structure have been the contribution of Gestalt psychology.

Sherif and Hovland's (1961) Assimilation Theory-Contrast Theory is a judgmental theory of attitude change which attempts to either directly or analogically apply principles of judgment to the phenomena of attitude change. Assimilation-Contrast Theory utilizes such concepts as the formation of reference scales. Sherif and Hovland discuss three types of laboratory demonstrations of reference scale formation on the basis of a well-graded stimulus series having an explicit standard within the scale, on the basis of a well-graded stimulus series without an explicit standard and scale formation with neither a well-graded stimulus series nor an explicit standard.
Attitudinal Measurement

Despite the proliferation of research in many areas of attitudinal measurement, there has been a paucity of attitude research due to lack of instrumentation (Effron and Effron, 1967-1968). The necessity for scientific attitude assessment is attested to by the conclusion of the President's Panel on Mental Retardation.

It is important to stress studies ... must seek to discover the range and variability of attitudes, beliefs, and information levels in the various segments of the community (1964, p. 30).

The questionnaire is the simplest method of determining how common an attitude may be in a certain population (Fishbein, 1967). This method may be said to "measure" the range and distribution of public opinion and possibly determine the intensity of the opinion of any given individual upon the issue in question.

Some investigators have made attempts to measure attitudes by means of scales (Guilford, 1954). Here, the subject's position on the attitude continuum is unknown and must be estimated from his response to statements contained in the scale. One method of an attitude scale is the median method of scoring (Thurstone, 1927). The attitude score in the median method gives the position of the subject on a psychological continuum on which statements themselves have been scaled. A score obtained by this method is regarded as a linear transformation of
the subject's position on the psychological continuum determined by the scale of the original statements (Edwards, 1957). Assumptions toward this measurement are made by having a set of statements which have been scaled on a psychological continuum from least to most favorable. The statements are presented in random order to individuals with instructions to indicate whether they agree or disagree with each one. The assumption is made that the degree of agreement or disagreement is a function of the degree of effect associated with the psychological object by the subjects.

An individual who has a highly favorable attitude toward the psychological object is believed to be more likely to agree with statements that have highly favorable scale values than he is with statements that do not. And, similarly, individuals who have the least favorable attitudes toward the psychological object are believed to be more likely to endorse statements that are comparable with their own positions than they are with statements that have opposite values. This method is called the median method of scoring (Guilford, 1956).

There are some pitfalls in developing informal attitude statements. Edwards and Kenney (1946) have suggested various informal criteria for editing statements to be used in the construction of attitude scales. Their suggestions are summarized below:
1. Avoid statements that refer to the past.
2. Avoid statements that are factual or capable of being interpreted as factual.
3. Avoid statements that may be interpreted in multiple ways.
4. Avoid statements that are irrelevant to the psychological object under consideration.
5. Avoid statements that are likely to be endorsed by almost everyone or by almost no one.
6. Select statements that are believed to cover the entire range of the affective scale of interest.
7. Keep the language of the statements simple, clear, and direct.
8. Statements should be short, rarely exceeding twenty words.
9. Each statement should contain only one complete thought.
10. Avoid statements containing universals such as all, always, none, and never which often introduce ambiguity.
11. Words such as only, just, merely, and others of a similar nature should be used with care and moderation in writing statements.
12. Whenever possible, statements should be in the form of simple sentences rather than in the form of compound or complex sentences.
13. Avoid the use of words that may not be understood by those who are to be given the completed scale.
14. Avoid the use of double negatives.

The questionnaire was examined by Effron and Effron (1957-60). They noted that it is possible to conceptualize into three distinct operations a research strategy used to investigate the structure of the attitude domain of opinions. The first step consisted of developing a questionnaire to cover a wide range of relevant opinions. The second step required a large number of respondents to respond to each of the items of the questionnaire. The third step was to statistically manipulate the data obtained from the responses of many different individuals.
and arrive at the empirical dimensionality of the attitude domain.

One type of format used is the Likert format questionnaire consisting of thirty statements followed by a six-point agree-disagree continuum, viz., strongly sure but probably disagree, disagree, and strongly disagree. These items were selected from a pool of items developed by the investigators.

The major restriction on the problem of measuring attitudes is specification of an attitude variable and limiting the measurement to that (Thurstone, 1935). A degree of restriction can be thought of as a continuum ranging from complete and absolute freedom to equally complete and absolute restriction including neutral and different attitudes. The restriction is necessary on the problem of measuring attitudes and also to the very nature of measurement. In specifying the attitude variable, the first requirement is to state the variable in terms of "more" or "less."

There is some ambiguity in using the term "attitude" in the plural. An attitude is represented as a point on the attitude continuum. Consequently, there is an infinite number of attitudes that might be represented along the attitude scale. In practice, however, we do not differentiate so finely. In fact, an attitude, practically speaking, is a certain narrow range or vicinity on the scale. When a frequency distribution is
drawn for any continuous variable, such as stature, we classify the variable for descriptive purposes into steps or class intervals. The attitude variable is also divided into class intervals and the frequency counted in each class interval. When we speak of "an" attitude, we mean a point or a vicinity on the attitude continuum. Several attitudes will be considered not as a set of discrete entities, but as a series of class intervals along the attitude scale.

Over the past thirty years the subject of attitudes toward disability has received wide attention from educators. The measurement techniques for these attitudes have been diverse. The purpose of the study usually determines the specific technique used by an investigator when seeking an objective evaluation of attitudes toward disability (Yuker, Block, Younng, 1966). The main purpose of a study is either to survey attitudes or to investigate specific hypotheses about attitudes toward disabilities. Investigators in this field have tended to develop simple and untested instruments for eliciting attitudes. The range of formats used has been from simple unstructured interview schedules or questionnaires to Likert scales. The formats include non-projective social distance scales, adjective checklists, Q sorts, sociometric
devices to sentence-completion and picture-story projectives.

The non-scored instruments, the simplest method for tapping attitudes, is the unstructured questionnaire. In this measure, the subject is asked direct questions about his attitude toward a disability or disabled persons and is asked to respond freely. This method was used successfully in 1933 by Koehler.

Usually, data from unstructured questionnaires are treated only in terms of type frequencies of response for each item. Horowitz and Rees (1964) conducted a study which investigated types of attitudes and information held by adults and children about deaf people and deafness. This study yielded a pattern of specific types of attitudes toward disability. Wang (1923) conducted studies using structured questionnaires and open-end items in studying the area of employers' preferences in hiring disabled persons. Here, frequencies in each category of response for each separate attitude item are compared for different groups of subjects as in the open-end questionnaire. Retest reliability on structured and non-scorable questionnaires can be calculated from percentage of shifts of numerical response categories, depending on the range of response categories. This analysis gives the indication of the stability of each item. This type of reliability check was used by
Edwards and Kenney (1957) with a non-scorable, 6-point (strongly agree to strongly disagree) rating scale to survey types of attitudes toward hiring disabled workers.

Yuker, Block, and Young (1966), in a study relating to the measurement of attitudes toward disabled persons, found some demographic correlation of attitudes toward disabled persons. The variables of sex, race, marital status, and educational grade level were used. The correlation of age to attitude toward disabled persons was found to be significant by Wilson (1960). However, Bell (1962) reported no significant relationship between age and the attitudes toward disabled persons. The demographic variable of sex was studied by Yuker, Block and Campbell (1960) who found the existence of significant differences between males and females in attitudes toward the disabled. Cowen and Cowen (1963) in studying the variable of race, found significance between students in the United States and their attitude toward blind persons. Bell (1962) conducted studies of married and unmarried hospital employees and failed to find any significant difference in their attitude toward disabled persons. Educational grade level was used in a study by Wilson (1960) which indicated a significance in attitudes toward the disabled of students and educators who had a higher educational grade level.

The relationship between attitudes toward disabled persons and each demographic variable has been explored.
by various educators.

The Measurement of Attitudes Toward Disabled Persons (ATDP) developed by Yuker, Block, and Younng (1966) reported reliability and validity studies. As indicated in the publication, Technical Recommendations for Psychological Tests and Diagnostic Techniques (American Psychological Association, 1954), three major types of reliability exist: stability, equivalence, and stability-equivalence. Each of these approaches defines reliability from a slightly different point of view while making slightly different assumptions. The reliability of the Measurement of Attitudes Toward the Disabled Person has been investigated using each of these approaches.

A different approach to estimating the reliability of a psychometric device is referred to as equivalence reliability. While stability measures indicate the influence of time administration upon the reliability of a scale, equivalence measures indicate the influence of the particular sample of its chosen items.

Two kinds of approaches to measuring equivalence reliability have been used with the Measurement of Attitudes Toward the Disabled Person. The first is widely known as the split-half method in which the odd and even numbered items are scored separately and the correlation
between the two is corrected for length using the Spearman-Brown Prophecy formula (Guilford, 1956). The alternate approach to equivalence involves construction of two different but presumably equivalent forms of a scale.

If both forms are administered to the subject at the same time, to the extent that the items represent random samples drawn from the same population, there should be a high correlation between them. This technique is sometimes referred to as "immediate parallel forms reliability."

The crucial question with regard to any measurement device is the validity factor. In constructing the Measurement of Attitudes Toward the Disabled Person, the designers assumed the scale would reflect different characteristics when used with disabled persons than when used with non-disabled persons. It was assumed that when a disabled person responded to test items referring to disabled persons, he would be using himself as a frame of reference. It was assumed that he would identify with the concept "disabled person." When the Measurement of Attitudes Toward the Disabled Person was used with disabled persons it might provide a measure of acceptance of desirability and self-acceptance.

Another assumption is that when the Measurement of Attitudes Toward the Disabled Person was administered to non-disabled persons it would provide a measure of attitudes toward disabled people viewed as a group. The
non-disabled respondent would not identify with the disabled but would use the group as a framed reference.

Scores on the Measurement of Attitudes Toward the Disabled Person could be interpreted in terms of acceptance or prejudice toward disabled persons. It was assumed that the scores indicate whether the respondent tends to accept disabled persons as the same as everyone else or whether he tends to view them as different and/or requiring special treatment.

Distinctions are usually made between at least four different types of measures of validity: content validity, predictive validity, concurrent validity, and construct validity (American Psychological Association, 1954). Evidence for the validity of the Measurement of Attitudes Toward the Disabled Person is based largely upon construct validity. This technique seeks to confirm a series of predictions pertaining to the relationship of the variable being measured to other variables.

If most of the predictions are found to be and none yields results that are diametrically opposed to the predictions, the common variance between studies is frequently assumed to represent the construct in question. In the present case, it was predicted that persons with low Measurement of Attitudes Toward the Disabled Person scores would likely behave in certain ways, while people with high Measurement of Attitudes Toward the Disabled Person scores would behave in other ways.
In testing these predictions it was anticipated that there would not be confirmation of the hypotheses at high levels of probability since the dependent variables used are complex and usually reflect the interactions of a number of variables (Yuker, Block and Younng, 1966).

By observing whether the correlations were significantly different from zero and in the direction predicted on the basis of theoretical considerations of attitudes toward the disabled, it was possible to indicate the adequacy of the measuring instruments.
CHAPTER III

STUDY PROCEDURE

Many factors were considered in determining the procedures to obtain the data for this study. The study was concerned with the attitudes of elementary school teachers toward the mentally handicapped in Spartanburg County, School District Five, South Carolina. The study was designed to ascertain whether there was a significant relationship between teachers and specific variables. Geographically, the study was conducted in the County of Spartanburg, South Carolina. An investigation of teacher attitudes toward the mentally handicapped should provide a foundation for the development of meaningful teacher-pupil relationships.

Population

During the beginning of the investigation, verbal permission was received from the Superintendent of Spartanburg County School District Five. A conference was arranged and scheduled with the school district administrative staff and the school district elementary school principals. The purpose of the scheduled conference was fourfold: (1) orientate the group toward
the testing procedures; (2) support and cooperate with the investigation; (3) the scheduling of test dates; and (4) the presentation of a trial test run of the attitude measuring scale. The study design was carefully explained to the administrative staff and elementary school principals.

A trial test (on a representative sample) was given to elementary school principals and administrative staff members. The trial test was necessary to recheck the testing procedures and also to guard against potential procedural problems. The representative group was selected because they have had direct contact with the elementary school teachers and also the trial test helped gain support and cooperation from each school participating.

The original population actually taking the attitude measuring scale would consist of seventy-four elementary teachers (grades 1-6) from Spartanburg County School District Five, South Carolina.

Procedure of Study

A modified version of the Measurement of Attitudes Toward Disabled Persons Scale (ATDP) Form A, developed by Harold E. Yuker, J. R. Block and Janet H. Younng was utilized to collect responses of elementary teacher attitudes toward the mentally handicapped. For testing purposes the modified Measurement of Attitudes Toward the Disabled Person was used and called The Measurement of
Attitudes Toward Mentally Handicapped Children (ATMHC) Form A. (Appendix A). Verbal permission was received from the original author of the Measurement of Attitudes Toward the Disabled Person to change and substitute wording in the original questionnaire. A letter was then followed up to reconfirm the modification of the Measurement of Attitudes Toward the Disabled Person (Appendix E).

The items selected for the questionnaire were developed by Yuker, Block, and Younng (1966). These educators used a large repertoire of statements describing disabled persons from investigative research. These items were screened by several psychologists to determine pertinence for use in scales. As a result of this screening review, an initial pool of 300 items were narrowed down to preliminary scales of forty to sixty items. A technique suggested by Edwards (1957) was used to select items for the final scale. A high and low score was determined by dividing the group at the median of the total score distribution. These high and low groups provided an internal criterion of the discriminative ability of each item. In Form A of the modified version of the Attitudes Toward Disabled Persons Scale (Appendix A&B)"external" criterion was used. When an "internal" criterion was used for Form A, the high and low scoring groups were set up on the basis of total score. The results of the internal item analysis
revealed that Form A, the original thirty items discriminated at the .01 level or better.

In presenting the inventory to the elementary teachers, a sample page was explained and participants were to answer the statements with their first reactions. It was verbally indicated that there were no right or wrong answers to the statements.

First, a biographical inventory was distributed to the subjects. Respondents were asked to complete the form. Secondly, the answer sheet to the Attitudes Toward Mentally Handicapped Children's Scale (ATMHC) was distributed. Information regarding the scoring of the measurement was verbally given. The same information was also written above the answer sheet. Thirdly, The Attitudes Toward Mentally Handicapped Children's Scale was distributed. The task took approximately twenty minutes to give.

The number of elementary school teachers taking the test was reduced from seventy-four to seventy-two participants. Two of the teachers were eliminated because of failure to answer all the questions on the Attitudes Toward Mentally Handicapped Children's Scale. All teachers participating were very cooperative.

Treatment of Data

The present study was designed to compare attitudes of elementary school teachers toward mentally handicapped
### TABLE 3
Distribution of Sample by School Category

<table>
<thead>
<tr>
<th>Location of School</th>
<th>Number of Teachers</th>
<th>Student Population Per School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Startex Elementary</td>
<td>9</td>
<td>264</td>
</tr>
<tr>
<td>Lyman Elementary</td>
<td>10</td>
<td>277</td>
</tr>
<tr>
<td>Reidville Elementary</td>
<td>12</td>
<td>336</td>
</tr>
<tr>
<td>Welford Intermediate</td>
<td>8</td>
<td>284</td>
</tr>
<tr>
<td>Welford Primary Elementary</td>
<td>10</td>
<td>279</td>
</tr>
<tr>
<td>Duncan Elementary</td>
<td>24</td>
<td>840</td>
</tr>
</tbody>
</table>

children in Spartanburg County, South Carolina School District Five. The study was done in an effort to provide better understanding of these attitudes and to aid in the development of more meaningful relationships between the regular classroom teacher and the mentally handicapped school-aged child.

To statistically treat the data obtained from the modified Measurement of Attitudes Toward the Disabled Person, the method used was called the One Way Analysis of Variance-Fixed Effects Models. The first step in the analysis of variance was to group the teachers according to ten related variables. One analysis of variance table was done for each question relating to the related variables.
In One Way Analysis of Variance we are comparing \( k \) rows or treatments (for each variable), and in our examples we have an unequal number of observations per row. There are two sources of variability in our data:

1. variation due to \( \varnothing \) effect (rows) and
2. variation due to \( E \) (random error).

Our hypothesis for each example is:

\[ H_0: \ \varnothing_i = 0 \] for all \( i \) (in this case years of experience have no effect on teachers' attitudes toward the mentally handicapped). Our alternate hypothesis for each example is:

\[ H_1: \ \varnothing \neq 0 \] for at least one \( i \).

The formulas we use are \( SS_T = \sum \sum X^2_{ij} - G^2/N \) where \( X_{ij} \) is the \((ij)\)th score so that \( \sum \sum X^2_{ij} \) is the sum of the squares of every teacher's score. \( G \) is the sum of all the scores, and \( N \) is the number of scores (teachers who took part in the study). \( SS_R = \sum \left( \frac{R_i^2}{N_i} \right) - \frac{G^2}{N} \)

where \( R_i \) is the sum of the scores in the \( i \)'th row and \( N_i \) is the number of scores in the \( i \)'th row. \( G \) and \( N \) are the same as before. \( SS_E = SS_T - SS_R \).

The degrees of freedom are:
row degrees of freedom = \( k-1 \),
error degrees of freedom = \( N-k \), and total degrees of freedom = \( N-1 \).
The first step in the analysis of variance for question one is to divide the teachers' answer sheets up into groups depending on their years of experience and then to get the sum of the scores in each group.
CHAPTER IV

ANALYSIS OF INTERPRETATION OF DATA

The intent of this study was to investigate attitudes of elementary school teachers toward mentally handicapped children. More specifically, the study was presented to determine if any significances in teachers' attitudes were evident between teacher groups. The teacher groups were regular elementary school teachers, teaching regular elementary classes in Spartanburg County School District Five, South Carolina.

Methods Used in the Study

The data compiled was from one source, The Measurement of Attitudes Toward Disabled Persons, (ATDP) developed by Yuker, Block and Young (1966). After 1966, The Measurement of Attitudes Toward Disabled Persons was modified by this investigator into the Attitude Toward Mentally Handicapped Children's Scale (ATMHC). Verbal permission was given by the author of The Measurement of Attitudes Toward Disabled Persons to make modifications of the scale (Appendix E).
Analysis of Interpreting The Measurement of Attitudes Toward Disabled Persons

In order to determine each subject's responses to the statements listed on the Modified Attitude Toward Disabled Persons Scale, opinions were given the rating of (1) I agree very much; (2) I agree pretty much; (3) I agree a little; (4) I disagree a little; (5) I disagree pretty much; (6) I disagree very much.

Ten variables were analyzed to ascertain significant relationship between elementary school teacher attitudes toward the mentally handicapped. A statistical analysis of the results of a comparative study of attitudes of elementary school teachers toward mentally handicapped children was computed.

In order to answer the ten variables posed in this study, first, each teacher's answer sheet was scored using the method described on pages 25 and 26 of The Measurement of Attitudes Toward Disabled Persons (Appendix F). The score for each teacher remained the same throughout the analyses.

The method implemented to analyze the test results and answer each of the ten variables is called One Way Analysis of Variance Model - Fixed Effects. One analysis of variance table was done for each question. A description in detail of the analysis of variance for the first variable is described and then an outline method for the other nine variables is included. The variables analyzed were:
1. Is there a significant relationship between elementary school teachers' attitudes toward the mentally handicapped and years of teaching experience?

In One Way Analysis of Variance we are comparing k rows or treatments (in this case years of experience), and in our examples we have an unequal number of observations per row. There are two sources of variability in data:

1. variation due to \( \emptyset \) effect (rows) and
2. variation due to E (random error).

Our hypothesis for each example is:

\[ H_0: \ \emptyset_i = 0 \text{ for all } i \] (in this case years of experience have no effect on teachers' attitudes toward the mentally handicapped). The alternate hypothesis for each example is:

\[ H_1: \ \emptyset_i \neq 0 \text{ for at least one } i. \]

The formulas used were

\[ SS_T = \sum_{ij} X^2_{ij} - G^2/N \]

where \( X_{ij} \) is the (ij)th score so that \( \sum_{ij} X^2_{ij} \) is the sum of the squares of every teacher's score. \( G \) is the sum of all the scores, and \( N \) is the number of scores (teachers who took part in the study). \( SS_R = \sum_i \left( \frac{R_i}{N_i} \right)^2 - \frac{G^2}{N} \) where \( R_i \) is the sum of the scores in the i'th row and \( N_i \) is the number of scores in the i'th row. \( G \) and \( N \) are the same as before. \( SS_E = SS_T - SS_R \).
The degrees of freedom are:
row degrees of freedom = \( k-1 \),
error degrees of freedom = \( N-k \), and
total degrees of freedom = \( N-1 \).

The first step in the analysis of variance for question one is to divide the teachers' answer sheets up into groups depending on their years of experience and then to get the sum of the scores in each group.

<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>Row Totals</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>( R_1 = 2,609 )</td>
<td>( N_1 = 28 )</td>
</tr>
<tr>
<td>5-9</td>
<td>( R_2 = 618 )</td>
<td>( N_2 = 8 )</td>
</tr>
<tr>
<td>10-14</td>
<td>( R_3 = 545 )</td>
<td>( N_3 = 6 )</td>
</tr>
<tr>
<td>15-19</td>
<td>( R_4 = 435 )</td>
<td>( N_4 = 5 )</td>
</tr>
<tr>
<td>20-24</td>
<td>( R_5 = 870 )</td>
<td>( N_5 = 10 )</td>
</tr>
<tr>
<td>25-29</td>
<td>( R_6 = 636 )</td>
<td>( N_6 = 8 )</td>
</tr>
<tr>
<td>30-34</td>
<td>( R_7 = 443 )</td>
<td>( N_7 = 5 )</td>
</tr>
<tr>
<td>35-39</td>
<td>( R_8 = 151 )</td>
<td>( N_8 = 2 )</td>
</tr>
<tr>
<td>over 40</td>
<td>( R_9 = 85 )</td>
<td>( N_9 = 1 )</td>
</tr>
</tbody>
</table>

\( k = 9 \)

\( SS = 35,189.9726 \)
\( N = 73 \)

\( SS = 2,625.8321 \)
\( G = 6,392 \)

\( SS = 32,564.1405 \)

\( \sum_{ij} x^2_{ij} = 594,884 \)
Analysis of Variance Table

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>Degrees of Freedom</th>
<th>SS_R</th>
<th>d.f.</th>
<th>SS_E</th>
<th>d.f.</th>
<th>MS_R</th>
<th>MS_E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rows (Experience)</td>
<td>2,625.8321</td>
<td>8</td>
<td>328.229</td>
<td>328.229</td>
<td>508.815</td>
<td>508.815</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>32,564.1405</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35,189.9726</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F_0 is the test statistic which will be compared with a table value, F. If F_0 < F we will accept H_0 that the row effects equal zero. If F_0 > F we will reject H_0 and accept our alternate hypothesis H_1 that row effects are not equal to zero. Using a significance level of .01 we get a table value of F .01 (8,64) = 2.81. Therefore, we accept H_0 and conclude with a 99% probability that there is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped with varying years of teaching experience.

2. Is there a significant relationship between male and female elementary school teachers' attitudes toward the mentally handicapped?

Dividing the answer sheets into two groups we get:

<table>
<thead>
<tr>
<th>Sex</th>
<th>Row Totals</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>R_1 = 535</td>
<td>N_1 = 5</td>
</tr>
<tr>
<td>Female</td>
<td>R_2 = 5,857</td>
<td>N_2 = 68</td>
</tr>
<tr>
<td>k = 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS_T = 35,189.9726</td>
<td>SS_R = 2,028.1638</td>
<td>SS_E = 33,161,8088</td>
</tr>
</tbody>
</table>
Analysis of Variance Table

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F_0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>2,028.1638</td>
<td>1</td>
<td>2028.1638</td>
<td>4.342</td>
</tr>
<tr>
<td>Error</td>
<td>33,161.8088</td>
<td>71</td>
<td>467.0677</td>
<td></td>
</tr>
</tbody>
</table>

Total 35,189.9726 72

F_{0.01}(1,71) = 7.04. Since F_0 < F we accept H_0 and conclude with a 99% probability that there is no significant relationship between male and female elementary school teachers' attitudes toward the mentally handicapped.

3. Is there a significant relationship between age of elementary school teachers' attitudes toward the mentally handicapped?

<table>
<thead>
<tr>
<th>Age</th>
<th>Row Totals</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or less</td>
<td>R_1 = 2,226</td>
<td>N_1 = 24</td>
</tr>
<tr>
<td>26-30</td>
<td>R_2 = 342</td>
<td>N_2 = 4</td>
</tr>
<tr>
<td>31-35</td>
<td>R_3 = 443</td>
<td>N_3 = 5</td>
</tr>
<tr>
<td>36-40</td>
<td>R_4 = 273</td>
<td>N_4 = 3</td>
</tr>
<tr>
<td>41-45</td>
<td>R_5 = 498</td>
<td>N_5 = 5</td>
</tr>
<tr>
<td>46-50</td>
<td>R_6 = 498</td>
<td>N_6 = 6</td>
</tr>
<tr>
<td>51-55</td>
<td>R_7 = 793</td>
<td>N_7 = 10</td>
</tr>
<tr>
<td>56-60</td>
<td>R_8 = 329</td>
<td>N_8 = 4</td>
</tr>
<tr>
<td>61-65</td>
<td>R_9 = 776</td>
<td>N_9 = 9</td>
</tr>
<tr>
<td>Over 65</td>
<td>R_{10} = 214</td>
<td>N_{10} = 3</td>
</tr>
</tbody>
</table>

k = 10 \quad SSR = 3,155.0004

SS_T = 35,189.9726 \quad SSE = 32,034.9722
Analysis of Variance Table

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F_0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>3,155.0004</td>
<td>9</td>
<td>350.5556</td>
<td>.689</td>
</tr>
<tr>
<td>Error</td>
<td>32,034.9722</td>
<td>63</td>
<td>508.4916</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35,189.9726</td>
<td>72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F_{0.01}(9,63) = 2.71. Since F_0 < F we accept H_0 and conclude with a 99% probability that there is no significant relationship between age of elementary school teachers' attitudes toward the mentally handicapped.

4. Is there a significant relationship between highest degrees earned between elementary school teachers' attitudes towards the mentally handicapped?

<table>
<thead>
<tr>
<th>Highest Degree</th>
<th>Row Totals</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor's</td>
<td>R_1 = 5,520</td>
<td>N_1 = 62</td>
</tr>
<tr>
<td>Bachelor's +</td>
<td>R_2 = 693</td>
<td>N_2 = 9</td>
</tr>
<tr>
<td>Master's</td>
<td>R_3 = 179</td>
<td>N_3 = 2</td>
</tr>
<tr>
<td>k = 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS_T = 35,189.9726</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS_R = 1,145.5371</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS_E = 34,044.4355</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of Variance Table

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F_0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree</td>
<td>1,145.5371</td>
<td>2</td>
<td>572.769</td>
<td>1.178</td>
</tr>
<tr>
<td>Error</td>
<td>34,044.4355</td>
<td>70</td>
<td>486.349</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35,189.9726</td>
<td>72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
$F_{0.01}(2, 70) = 4.95$. Since $F > F_{0.01}$ we accept $H_0$ and conclude with a 99% probability that there is no significant relationship between elementary school teachers' attitudes towards the mentally handicapped depending on their highest degree earned.

5. Is there a significant relationship between the number of semester hours earned in special education in elementary school teachers' attitudes toward the mentally handicapped?

<table>
<thead>
<tr>
<th>Semester Hours</th>
<th>Row Totals</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 3</td>
<td>$R_1 = 4,768$</td>
<td>$N_1 = 55$</td>
</tr>
<tr>
<td>3-5</td>
<td>$R_2 = 791$</td>
<td>$N_2 = 8$</td>
</tr>
<tr>
<td>6-8</td>
<td>$R_3 = 210$</td>
<td>$N_3 = 3$</td>
</tr>
<tr>
<td>9-11</td>
<td>$R_4 = 202$</td>
<td>$N_4 = 2$</td>
</tr>
<tr>
<td>12-14</td>
<td>$R_5 = 112$</td>
<td>$N_5 = 1$</td>
</tr>
<tr>
<td>15-17</td>
<td>$R_6 = 86$</td>
<td>$N_6 = 1$</td>
</tr>
<tr>
<td>18-20</td>
<td>$R_7 = 171$</td>
<td>$N_7 = 2$</td>
</tr>
<tr>
<td>21 or more</td>
<td>$R_{11} = 52$</td>
<td>$N_{11} = 1$</td>
</tr>
</tbody>
</table>

$k = 8$

$SS_R = 4,224.8521$

$SS_T = 35,189.9726$

$SS_E = 30,965.1205$

Analysis of Variance Table

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>$F_O$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours in Sp. Ed.</td>
<td>4,224.8521</td>
<td>7</td>
<td>603.5503</td>
<td>1.2669</td>
</tr>
<tr>
<td>Error</td>
<td>30,965.1205</td>
<td>65</td>
<td>476.3865</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35,189.9726</td>
<td>72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
\( F_{.01} (7.65) = 2.94. \) Since \( F \leq F_{0} \) we accept \( H_{0} \) and conclude with a 99% probability that there is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped depending on the number of semester hours earned in special education.

6. Is there a significant relationship between racial groups in elementary school teachers' attitudes toward the mentally handicapped?

<table>
<thead>
<tr>
<th>Race</th>
<th>Row Totals</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>( R_{1} = 5,503 )</td>
<td>( N_{1} = 63 )</td>
</tr>
<tr>
<td>Nonwhite</td>
<td>( R_{2} = 889 )</td>
<td>( N_{2} = 10 )</td>
</tr>
</tbody>
</table>

\( k = 2 \)

\( SS_{R} = 20.7551 \)

\( SS_{T} = 35,189.9726 \)

\( SS_{E} = 35,169.2175 \)

**Analysis of Variance Table**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>( F_{0} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>20.7551</td>
<td>1</td>
<td>20.7551</td>
<td>0.0419</td>
</tr>
<tr>
<td>Error</td>
<td>35,169.2175</td>
<td>71</td>
<td>495.3411</td>
<td></td>
</tr>
</tbody>
</table>

\( F_{.01} (1,71) = 7.04. \) Since \( F \leq F_{0} \) we accept \( H_{0} \) and conclude with a 99% probability that there is no significant difference between elementary school teachers' attitudes toward the mentally handicapped depending on race.

7. Is there a significant relationship between teachers who teach specific grades and their attitudes toward the mentally handicapped?
Grade Taught | Row Totals | Number of Observations
--- | --- | ---
Ungraded | $R_1 = 143$ | $N_1 = 2$
1st | $R_2 = 1,242$ | $N_2 = 15$
2nd | $R_3 = 1,016$ | $N_3 = 12$
3rd | $R_4 = 1,189$ | $N_4 = 14$
4th | $R_5 = 822$ | $N_5 = 10$
5th | $R_6 = 978$ | $N_6 = 10$
6th | $R_7 = 1,002$ | $N_7 = 10$

$k = 7$ \( S_{R} = 3,986.6773 \)
\( S_{T} = 35,189.9726 \) \( S_{E} = 31,203.2953 \)

### Analysis of Variance Table

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>( F_0 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade taught</td>
<td>3,986.6773</td>
<td>6</td>
<td>664.4462</td>
<td>1,4054</td>
</tr>
<tr>
<td>Error</td>
<td>31,203.2953</td>
<td>66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35,189.9726</td>
<td>72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( F_{.01} (6,66) = 3.10 \). Since \( F_0 \) we accept \( H_0 \) and conclude with a 99% probability that there is no significant relationship between teachers who teach specific grades and their attitudes toward the mentally handicapped.

8. Is there a significant relationship between elementary school teachers' attitudes toward the mentally handicapped and the type of school in which they teach?
School | R | Number of Observations
---|---|---
Startex | 1 = 728 | N1 = 9
Lyman | 2 = 809 | N2 = 10
Reidville | 3 = 1,006 | N3 = 12
Welford Inter. | 4 = 785 | N4 = 8
Welford Primary | 5 = 814 | N5 = 10
Duncan | 6 = 2,250 | N6 = 24
k = 6 | SS_R = 3,202.742
SS_T = 35,189.9726 | SS_E = 31,987.2306

**Analysis of Variance Table**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>F_0</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>3,202.742</td>
<td>5</td>
<td>640.5484</td>
<td>1.3417</td>
</tr>
<tr>
<td>Error</td>
<td>31,987.2306</td>
<td>67</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>35,189.9726</td>
<td>72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F_{.01} (5,67) = 3.32. Since F_0 > F_{.01}, we accept H_0 and conclude that there is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped who come from different schools.

9. Is there a significant relationship between elementary school teachers' attitudes toward the mentally handicapped and their years of marriage?
<table>
<thead>
<tr>
<th>Years Married</th>
<th>Row Totals</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5</td>
<td>$R_1 = 2,966$</td>
<td>$N_1 = 32$</td>
</tr>
<tr>
<td>5 - 9</td>
<td>$R_2 = 322$</td>
<td>$N_2 = 4$</td>
</tr>
<tr>
<td>10 - 14</td>
<td>$R_3 = 449$</td>
<td>$N_3 = 5$</td>
</tr>
<tr>
<td>15 - 19</td>
<td>$R_4 = 270$</td>
<td>$N_4 = 3$</td>
</tr>
<tr>
<td>20 - 24</td>
<td>$R_5 = 425$</td>
<td>$N_5 = 5$</td>
</tr>
<tr>
<td>25 - 29</td>
<td>$R_6 = 516$</td>
<td>$N_6 = 6$</td>
</tr>
<tr>
<td>30 - 34</td>
<td>$R_7 = 665$</td>
<td>$N_7 = 9$</td>
</tr>
<tr>
<td>35 - 39</td>
<td>$R_8 = 514$</td>
<td>$N_8 = 6$</td>
</tr>
<tr>
<td>More than 40</td>
<td>$R_9 = 265$</td>
<td>$N_9 = 3$</td>
</tr>
</tbody>
</table>

$k = 9$  

$SS_R = 2,836.4087$  

$SS_T = 35,189.9726$  

$SS_E = 32,353.5639$

**Analysis of Variance Table**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>$F_O$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years Married</td>
<td>2,836.4087</td>
<td>8</td>
<td>354.5511</td>
<td>.7014</td>
</tr>
<tr>
<td>Error</td>
<td>32,353.5639</td>
<td>64</td>
<td>505.5244</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35,189.9726</td>
<td>72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$F_{.01}(8,64) = 2.81$. Since $F_O$, we accept $H_0$ and conclude that there is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped and their years of marriage.

10. Is there a significant relationship between elementary school teachers' attitudes toward the mentally handicapped and the number of children of their own?
<table>
<thead>
<tr>
<th>Number of Children</th>
<th>Row Totals</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>$R = 3,114$</td>
<td>$N = 34$</td>
</tr>
<tr>
<td>1</td>
<td>$R = 1,020$</td>
<td>$N = 12$</td>
</tr>
<tr>
<td>2</td>
<td>$R = 1,475$</td>
<td>$N = 19$</td>
</tr>
<tr>
<td>3</td>
<td>$R = 426$</td>
<td>$N = 4$</td>
</tr>
<tr>
<td>4</td>
<td>$R = 259$</td>
<td>$N = 3$</td>
</tr>
<tr>
<td>5</td>
<td>$R = 98$</td>
<td>$N = 1$</td>
</tr>
</tbody>
</table>

$k = 6$

$SS_R = 4,051.6495$

$SS_T = 35,189.9726$

$SS_E = 31,138.3231$

### Analysis of Variance Table

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>d.f.</th>
<th>M.S.</th>
<th>$F_o$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children</td>
<td>4,051.6495</td>
<td>5</td>
<td>810.3299</td>
<td>1.7436</td>
</tr>
<tr>
<td>Error</td>
<td>31,138.3231</td>
<td>67</td>
<td>464.7511</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35,189.9726</td>
<td>72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$F_{.01}(5,67) = 3.32$. Since $F_o$ we accept $H_o$ and conclude that there is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped and the number of children of their own.

### Summary of Findings

From the findings of this study it can be generally concluded within the delimitations stated earlier that none of the variables tested influenced relationships in elementary teachers' attitudes toward the mentally handicapped. The data from this study indicated that greater involvement on the part of teachers with the
mentally handicapped will be necessary in order for the mentally handicapped to succeed in the general mainstream of education. It is the responsibility of the teachers to become aware of mentally handicapped childrens problems in order for these children to have the opportunities of a successful year at school. Without the knowledge and the understanding of the mentally handicapped, the school age child will not be given an opportunity to transcend into the general successful mainstream of education.

Further research is needed to document the specific types of activities that will produce the greatest understanding between the regular classroom teacher and mentally handicapped school age child.
CHAPTER V

SUMMARY

The study was designed to investigate teacher attitudes toward the mentally handicapped school age child. Comparisons were made between teacher attitudes and related demographic variables. Teachers selected for the study were regular classroom teachers from Spartanburg County School District Five, South Carolina. The schools in District Five incorporated in the study were: (1) Startex Elementary, (2) Lyman Elementary, (3) Reidville Elementary, Welford Intermediate, Welford Elementary and Duncan Elementary Schools.

A modified version of the Measurement of Attitudes Toward Disabled Persons (ATDP) designed by Yuker, Block, and Younng (1966) was used to measure attitudes toward the mentally handicapped. The modified version used for this study was called the Measurement of Attitudes Toward Mentally Handicapped Children's Scale (ATMHC).

A comparison of elementary school teacher attitudes were used in conjunction with ten variables. The variables were: (1) varying years of experience, (2) male and female; (3) age; (4) highest degrees earned,
(5) number of semester hours earned in special education, (6) race, (7) specific grades, (8) who come from different schools, (9) varying amount of years married, and (10) number of children.

A questionnaire was given to elementary school teachers to obtain data. The One-way Analysis of Variance-Fixed Model was used and recommended by Williams (1972) to statistically evaluate data collected from the modified version of the Measurement of Attitudes Toward Disabled Persons (ATDP). The analysis of variance was to determine significant differences of teachers attitudes toward the mentally handicapped. The analysis of variance was used according to Williams (1972) because of the appropriate measurement; the measurement compares one set of a population with another and compares two variables with each other. The data which was subjected to the analysis of variance resulted in the rejection of all the null hypothesis at the .05 confidence level and further indicated that none of the variables listed caused a significant difference in teachers attitudes toward the mentally handicapped.

Conclusions

The analysis of the data collected from the modified version of the Measurement of Attitudes Toward Disabled Persons (ATDP) by Yuker, Block, and Younng (1966) was subjected to the One-way Analysis of Variance-Fixed
Effects Model and provided the following conclusions:

1. There is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped and years of teaching experience.

2. There is no significant relationship between male and female elementary school teachers' attitudes toward the mentally handicapped.

3. There is no significant relationship between age of elementary school teachers' attitudes toward the mentally handicapped.

4. There is no significant relationship between elementary school teachers' attitudes towards the mentally handicapped depending on their highest degree earned.

5. There is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped depending on the number of semester hours earned in special education.

6. There is no significant relationship between racial groups and the elementary school teachers' attitudes toward the mentally handicapped.

7. There is no significant relationship between teachers who teach specific grades and their attitudes toward the mentally handicapped.
8. There is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped and the type of school which they teach.

9. There is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped and their years of marriage.

10. There is no significant relationship between elementary school teachers' attitudes toward the mentally handicapped and the number of children of their own.

A failure to find any degree of relationship even approaching significance among the ten variables outlined in this study was not expected. It provided no support to the many findings of significant differences reported in the literature. Frequent references concerning teacher attitudes toward handicapped children afford a basis for assuming a causal relationship between the handicapped and the elementary school teacher. Apparently, the problem is much more complex than teacher attitudes alone. Although research (Yuker, Block, and Younng, 1966) has indicated that The Measurement of Attitudes Toward Disabled Persons (ATDP) can be modified by using the same item scale with
the substitution of disabled persons for handicapped, wheelchair nervous breakdown, or heart condition, and in this case "mentally handicapped," it is believed that possibly a more specific approach to attitudes should be defined and be developed.

Recommendations

It is believed that a modified replication of this investigation should be compiled on a variety of populations with particular emphasis on the differentiation of variables between the elementary teacher and the mentally handicapped school age child. In other words, what distinguishes a significant difference of attitudes of elementary school teachers toward mentally handicapped children? It would appear to be of some importance to investigate more completely the attitudes of other para educational personnel toward the mentally handicapped. Perhaps an avenue of approach to help the mentally handicapped child transcend into the general stream of education can be made through this area.

Based upon the results of the present study, the recommendations for research and further studies of elementary school teachers attitudes toward the mentally handicapped is as follows:

1. Areas of teacher attitudes toward the mentally handicapped should receive more concern from educators in special education. The objective
of such concern would be the promotion of better understanding by educators of teacher attitudes toward the mentally handicapped.

2. If the summary and conclusions of this study warrant concern by educators, further research should be conducted to help make the mentally handicapped transcend easily into the mainstream of education.

3. Teachers should receive more education and training in the area of all categories of the handicapped. If educators are going to assure a successful program to all school age children then they should receive more training in techniques and methods of learning with these mentally handicapped children.

4. Better regular and special education teacher programs should be established to acquaint regular teachers with a waking knowledge of the mentally handicapped in order to help and guide these children to reach their fullest potential.

Implications

Because the populations utilized in this study do not represent the population at large, the findings can be interpreted as a possible means to an avenue of approach towards the further study of attitudes as they relate to the handicapped. There is some question as to
whether or not different approaches to this study could have been utilized in order to get more significant relationships with the variables used in this study. Perhaps additional variables such as religion, personal contact, economic status, professional and non-professional occupations, information, counseling with the handicapped could have been used. However, the intent of this research was to duplicate similar variables that Yuker, Young, and Block (1966) used on the Measurement of Attitudes Toward the Disabled (ATDP). In this present investigation additional variables were used as compared to Yuker, Young, and Block's study. It was hoped that these additional variables would provide significant relationships between teacher attitudes toward the mentally handicapped.

Additional measuring instruments could have been utilized or added to this study. However, the writer of this research utilized the most sensitive instrument available with the data of this investigation which was the analysis of variance. Possibly different measuring instruments could have yielded significant relationships; but with the given data in this investigation, the analysis of variance was recommended by Williams (1972) and utilized by this investigator without reservation.

Perhaps educators will have to look in other directions to determine if significant relationships exist between
teachers and the mentally handicapped. However, the writer of this investigation feels like Doob (1947) when he mentioned we must continually subject and critically analyze attitudes with the aim of giving it more precise conceptual and operational meaning.
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APPENDIX A

THE MEASUREMENT OF ATTITUDES TOWARD MENTALLY HANDICAPPED CHILDREN SCALE (ATMHC)
THE MEASUREMENT OF ATTITUDES TOWARD MENTALLY
HANDICAPPED CHILDREN SCALE (ATMHC)

Form A

1. Mentally handicapped children are often unfriendly.
2. Mentally handicapped children should not have to compete for jobs with physically normal persons.
3. Mentally handicapped children are more emotional than other people.
4. Most mentally handicapped children are more self-conscious than other people.
5. We should expect just as much from the mentally handicapped children as from non-mentally handicapped children.
6. Mentally handicapped workers cannot be as successful as other workers.
7. Mentally handicapped children usually do not make much of a contribution to society.
8. Most mentally handicapped would not want to marry anyone who is physically disabled.
9. Mentally handicapped children show as much enthusiasm as other people.
10. Mentally handicapped children are usually more sensitive than other people.
11. Mentally handicapped children are usually untidy.
12. Most mentally handicapped children feel that they are good as other people.
13. The driving test given to the mentally handicapped should be more severe than the one given to the non-mentally handicapped.
14. Mentally handicapped children are usually sociable.
15. Mentally handicapped children usually are not as conscientious as physically normal persons.

16. Mentally handicapped children probably worry more about their health than those who have minor disabilities.

17. Most mentally handicapped children are not dissatisfied with themselves.

18. There are more misfits among mentally handicapped children than among non-mentally handicapped children.

19. Most mentally handicapped children do not get discouraged easily.

20. Most mentally handicapped children resent physically normal people.


22. Most mentally handicapped children can take care of themselves.

23. It would be best if mentally handicapped children would live and work with the non-mentally handicapped children.

24. Most mentally handicapped children are just as ambitious as physically normal persons.

25. Mentally handicapped children are just as self-confident as other people.

26. Most mentally handicapped children want more affection and praise than other people.

27. Mentally handicapped children are often less intelligent than non-mentally handicapped children.

28. Most mentally handicapped children are different from non-mentally handicapped children.

29. Mentally handicapped children don't want any more sympathy than other non-mentally handicapped children.

30. The way mentally handicapped children act is irritating.
APPENDIX B

ATMHC SCALE
ATMHC SCALE

Use this answer sheet to indicate how much you agree or disagree with each of the statements about the mentally handicapped on the attached list. Put an "X" through the appropriate number from $+3$ to $-3$ depending on how you feel in each case.

$+3$: I agree very much
$+2$: I agree pretty much
$+1$: I agree a little
$-1$: I disagree a little
$-2$: I disagree pretty much
$-3$: I disagree very much

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<th>Form A</th>
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INFORMATION TOWARDS ATMHC SCALE

CODE NUMBER__________________________________________

NAME__________________________________________ SEX___________

ADDRESS____________________________________________________________________

PHONE NO.________________________________ BIRTH DATE___________

YEARS MARRIED________________________ NO. OF CHILDREN_______

HIGHEST DEGREE ATTAINED________________________________________

NUMBER OF CREDIT HOURS IN THE
AREA OF SPECIAL EDUCATION_________________________________

NUMBER OF YEARS TEACHING EXPERIENCE_________________________________

GRADE NOW BEING TAUGHT________________________________

CLASS LOCATED IN_________________________________________ SCHOOL

____________________________________PRINCIPAL

RACE________________________________________________________

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APPENDIX D

SECTION 21-295 OF THE SOUTH CAROLINA CODE
SPECIAL EDUCATION ACT OF 1967

An Act To Amend Section 21-295, Code Of Laws Of South Carolina, 1962, As Amended, Defining Certain Terms Used In Regard To State Aid For The Education of Handicapped Children, So As To Define Hard Of Hearing Children And To Amend Section 21-295.3, Code Of Laws Of South Carolina, 1962, As Amended, Providing State Aid For The Education Of Handicapped Children, So As To Authorize Such Aid For Hard Of Hearing Children.

Be it enacted by the General Assembly of the State of South Carolina:

SECTION 1. Section 21-295, Code of Laws of South Carolina, 1962, as amended, is further amended by adding at the end thereof the following new item:

"(6) 'Hard of hearing children' means children of sound mind of the age of four years and older who are certified by a licensed physician that they suffer from any disability making it impracticable or impossible for them to benefit from or participate in the normal classroom program of the public schools because of an impairment to their hearing facilities."

The section when amended shall read as follows:

"Section 21-295. (1) 'Physically handicapped children' means children of sound mind and of legal school age who suffer from any disability making it impracticable or impossible for them to benefit from or participate in the normal classroom program for the public schools;

(2) 'Educable mentally handicapped children' means children of legal school age who, because of retarded mental growth, are incapable of being educated profitably and effectively through ordinary classroom instruction, but who may be expected to benefit from special education facilities designed to make them economically useful and socially adjusted;

(3) 'Trainable mentally handicapped children' means children of legal school age whose mental capacity is below that of those considered educable, yet who may profit by a special type of training to the extent that they may become more nearly self-sufficient and less burdensome to others;"
(4) 'Special education program' means education services carried on through special schools, special classes and special instruction;
(5) 'Emotionally handicapped children' means children of legal school age with demonstrably adequate intellectual potential who, because of emotional, motivational or social disturbances are unable to benefit from or participate in the normal classroom of the public schools but who may be expected to benefit from special instruction and services suited to their needs.
(6) 'Hard of hearing children' means children of sound mind of the age of four years and older who are certified by a licensed physician that they suffer from any disability making it impracticable or impossible for them to benefit from or participate in the normal classroom program of the public schools because of an impairment to their hearing facilities."

SECTION 2. Section 21-295.3, Code of Laws of South Carolina, 1962, as amended, is further amended by inserting after item (3.1) the following new item:
"(3.2) For special education for hard of hearing children, State aid shall be allowed for a teacher employed with a minimum enrollment of ten pupils and a minimum attendance of eight."

The section when amended shall read as follows:
"Section 21-295.3. The State Superintendent of Education shall reimburse school districts of the State for providing special educational services when in compliance with the provisions of this article and the rules and regulations of the State Board of Education, from the regular appropriations for teachers' salaries, in such manner as is provided by law. Such State aid shall be allowed as follows:
(1) For special education services for the physically handicapped or educable mentally handicapped, State aid shall be allowed for a teacher employed with a minimum enrollment of twelve pupils and a minimum attendance of ten.
(2) For special education services for the trainable mentally handicapped, State aid shall be allowed for a teacher employed with a minimum enrollment of ten pupils and a minimum attendance of eight.
(3) For special education for pupils with speech defects, State aid shall be allowed for a speech correctionist employed with a minimum of seventy-five pupils enrolled and a minimum attendance of at least eighty percent, with this special aid being allowed notwithstanding the fact that children may be counted for regular State aid in regular classes."
(3.1) For special education for emotionally handicapped children, State aid shall be allowed for a teacher employed with a minimum enrollment of ten pupils and a minimum attendance of eight.

(3.2) For special education for hard of hearing children, State aid shall be allowed for a teacher employed with a minimum enrollment of ten pupils and a minimum attendance of eight.

(4) The proportionate part of a teacher's salary will be allowed when such teacher has less than the required minimum enrollment and attendance.

(5) If in any district there are handicapped children not able even with the help of transportation to be assembled in a school, instruction may be provided in the child's home, or in hospitals or sanatoria. Children so instructed may be counted under the provisions of this article. The State Board of Education shall determine the number of hours of home instruction acceptable in lieu of regular school attendance."

SECTION 3. This act shall take effect upon approval by the Governor.

In the Senate House the 23rd day of March In the Year of Our Lord One Thousand Nine Hundred and Sixty-seven.

John C. West,
President of the Senate.

Soloman Blatt,
Speaker of the House of Representatives.

Approved the 24th day of March, 1967.

Robert E. McNair,
Governor.
APPENDIX E

LETTER SENT TO DR. HAROLD YUKER

HEMPSTEAD, NEW YORK
Dear Dr. Yuker:

I would like to take this opportunity to thank you for your verbal permission to make modifications on the Attitude Toward Disabled People (ATDP) Scale. During a recent conversation with you, it was agreed that I would write for written permission.

The modifications that I would like to make is the substitution of 'mentally handicapped children' in place of 'disabled people.' My doctoral advisory committee had requested me to seek your permission.

At this time I do not intend to copyright my dissertation. I shall acknowledge you for your attitude scale. Thank you once again for your permission.

Sincerely,

Robert S. Kulbeida
ALTERNATE SCORING METHOD

In an attempt to determine the meaningfulness of the weighting of ATDP responses (from +3 to -3) investigations were conducted in which the scale was rescored disregarding the response weights (Human Resources, 1962). Each of the responses was rescored giving a +1 to all positive responses and a -1 to all negative responses. These plus and minus responses were added algebraically and a constant of 20 was added to yield the rescore value.

One investigation used a sample of 81 non-disabled college students and correlated their scores on the ATDP-O with and without weighting, using the technique discussed above. The resultant correlation coefficient of +.92 is significant beyond the .01 level. Rescores were also performed with Forms A and B using two samples of 50 non-disabled college students randomly selected from our files. The correlation for Form A between weighted (regular) scoring and rescoring was +.93, and for Form B the correlation was also +.93. One sample of 50 disabled Ss was rescored on the ATDP-A and a correlation of +.95 was found between scoring methods.

In view of the consistency of these results, with all of the correlation coefficients being above +.90, one
can conclude that relatively little is lost through the use of the simplified scoring method. Further data are needed using this scoring method in research studies to see whether relationships with outside criteria are affected. These data are currently being gathered at Human Resources. In the interim, it appears that the simplified scoring method may be used.
SCORING

In scoring the ATDP the first step is to change the signs of the items with positive wording. By definition, a positive item is one which indicates that disabled persons are not "different" from non-disabled persons. Once the signs of the positive items have been changed, the algebraic sum of all the item scores is obtained. The sign of the sum is then reversed, from negative to positive or positive to negative. The total scores obtained in this fashion can range from -60 to +60 on the twenty-item scale, Form O; and from -90 to +90 on the thirty-item Forms A and B. To eliminate negative values a constant is then added to make all of the scores positive. This constant is 60 for the twenty-item scale and 90 for the thirty-item scale. The resulting score range is from 0 to 120 (Form O) or from 0 to 180 (Forms A and B) with a high score reflecting positive attitudes. Illustrations of scoring the ATDP are given in Tables 4 and 5. If more than 10 percent of the items are left blank (three items on the twenty-item scale or four on the thirty-item scale) the test is considered not scorable. If 10 percent or fewer items are omitted, the completed items are scored as usual with the customary constant added to eliminate negative values. This is equivalent to assigning a neutral value to the omitted items.
APPENDIX G

EDUCATION OF THE HANDICAPPED ACT
PART D
Part D of P.L. 91-230 EHA reads as follows:

Sec. 631. The Commissioner is authorized to make grants to institutions of higher education and other appropriate nonprofit institutions of agencies to assist them—
(1) in providing training of professional personnel to conduct training of teachers and other specialists in fields related to the education of handicapped children;
(2) in providing training for personnel engaged or preparing to engage in employment as teachers of handicapped children, as supervisors of such teachers, or as speech correctionists or other special personnel providing special services for the education of such children, or engaged or preparing to engage in research in fields related to the education of such children; and
(3) in establishing and maintaining scholarships, with such stipends and allowances as may be determined by the Commissioner, for training personnel engaged in or preparing to engage in employment as teachers of the handicapped or as related specialists.

Grants under this subsection may be used by such institutions to assist in covering the cost of courses of training or study for such personnel and for establishing and maintaining fellowships or traineeships with such stipends and allowances as may be determined by the Commissioner.

Sec. 632. The Commissioner is authorized to make grants to State educational agencies to assist them in establishing and maintaining, directly or through grants to institutions of higher education, programs for training personnel engaged, or preparing to engage, in employment as teachers of handicapped children or as supervisors of such teachers. Such grants shall also be available to assist such institutions in meeting the cost of training such personnel.

Sec. 633. The Commissioner is authorized to make grants to public or nonprofit private agencies, organizations, or institutions, or to enter into contracts with public or private agencies, organizations, or institutions, for projects for:
(1) encouraging students and professional personnel to work in various fields of education of handicapped children and youth, through, among other ways, developing and distributing imaginative or innovative materials to assist in recruiting personnel for such careers, or publicizing existing forms of
financial aid which might enable students to pursue such careers, or (2) disseminating information about the programs, services, and resources for the education of handicapped children.