To the Graduate Council:

I am submitting herewith a dissertation written by Samantha J. Stone entitled "A Study of Teacher Attitudes That Affect the Quality of Education for Exceptional Students." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Administration and Supervision.

Francis M. Trusty, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor
Graduate Studies and Research

A STUDY OF TEACHER ATTITUDES THAT AFFECT THE QUALITY OF EDUCATION FOR EXCEPTIONAL STUDENTS

A Dissertation

Presented for the

Doctor of Education

Degree

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Samantha J. Stone

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ABSTRACT

This study was to ascertain teacher attitudes toward handicapped students which might facilitate or inhibit the quality of education they receive. Teachers were asked to indicate their attitudes toward handicapped students in general. This information encompassed attitudinal indicators such as preparation, sympathy, communication, sense of ease, awareness of restrictions, appeal of teaching handicapped students, and ability to help them learn. The teachers also indicated their attitudes toward specific handicapping conditions--mentally retarded, language and/or speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, learning problems, and intellectually gifted.

A stratified random sample involving 36 secondary schools in Tennessee Congressional Districts, 1, 2, and 3 was chosen for this study. Twelve schools were selected to participate from each of the three Districts with approximately 67 percent being in county systems and 33 percent city. Of the 36 schools asked to participate, 27 agreed to do so, and 25 actually responded. The total teacher population of these 25 schools was 761, and of that number, there was a return rate of 371, 49 percent. The 347 usable responses were 46 percent of the teacher population of the responding 25 schools. Therefore, the response rate was acceptable.

To facilitate understanding of the seven-point scale for the semantic differential, 1.00 to 1.99 and 7.00 were interpreted as

"very closely related" to the concept; 2.00 to 2.99 and 6.00 to 6.99 denoted "quite closely related" to the concept; 3.00 to 3.99 and 5.00 to 5.99 indicated "only slightly related" to the concept; and 4.00 to 4.99 was neutral. Evaluation, potency, and activity were the three areas used to ascertain teacher attitudes toward exceptional students. The evaluation area designated worth; potency was the capacity for development; and activity was the normal power of mind or body. The designation of attitudes was based on the evaluation ratings.

The following conclusions can be drawn from the study.

1. Negative attitudes toward exceptional students are most strongly associated with youth and inexperience, and positive attitudes are most strongly associated with age and experience. These negative attitudes could be caused by feelings of inadequacy, while the positive attitudes may stem from a sense of professional dedication to teaching all students.

2. Seventy-eight percent of the teachers indicated inadequate training to teach handicapped students. Teachers who had taken no academic courses in special education were more negative than those who had taken several courses. Teachers with bachelor's degrees had more negative attitudes toward exceptional students than teachers with master's or specialist's degrees. These negative attitudes may be caused by insecurity engendered by a lack of adequate training to teach handicapped students. Teachers' earning higher educational degrees and taking special education courses should yield more positive attitudes.

3. Female teachers who had taught exceptional students indicated more negative attitudes than their male counterparts. Yet, male teachers who had not taught exceptional students were more negative toward the exceptionalities than were their female counterparts. It would seem that after exposure to a situation, male teachers are more positive than female teachers. Male teachers might be less deterred by disciplinary problems which could arise with exceptional students.

4. Having a handicapped family member is positively associated with teachers' favorable attitudes toward exceptional students. It would appear that frequent contact in a personal relationship makes for positive attitudes. These teachers might transfer their acceptance of a handicapped family member to exceptional students.

5. Teachers appear unaware of supportive services afforded by their school districts. This lack of awareness could further damage the quality of education for exceptional students. Creation of an awareness of supportive services and their subsequent utilization could yield more positive teacher attitudes toward exceptional students.

6. Teachers who taught music and art indicated negative attitudes toward exceptional students. Their attitudes might arise from being accustomed to the "perfection" of their art forms, and obvious imperfections in students might create discomfort. If these teachers could be helped to strive for improvement in individual students, rather than "perfection," their attitudes might become more positive.

7. This study revealed that mainstreaming is best served by teachers who have taught exceptional students, are 41 to 50 years of age, have 20 or more years of experience, have earned higher academic

degree levels, have had several courses in special education, are male, have a handicapped family member, and are aware of supportive services. The greater the number of these characteristics possessed by a teacher, the more positive the attitude toward exceptional students.

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INTRODUCTION TO STUDY

I. INTRODUCTION

In the 1960's some school systems began to mainstream students as a result of legislative and legal pressures challenging them to abandon special classes and find less restrictive educational placement for those mildly handicapped. With mainstreaming, as with many other innovative ideas in education, school administrators in many parts of the country moved to quickly implement these new procedures. With the hope of providing better opportunities for exceptional children, administrators placed the children in regular classrooms and waited to see them perform as a part of the group. Unfortunately their expectations were seldom realized. The majority of these children had not had the same experiences and preparation as their classmates. Consequently they continued to be diagnosed as problem children.[1]

Then in 1975, Public Law 94-142 was enacted because of the many deficiencies in the education being provided handicapped children. There were eight million handicapped children in the United States, one-half of whom did not receive appropriate educational services and approximately one million of whom were excluded from public schools.

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[1]Ellen Kavanagh, "A Classroom Teacher Looks at Mainstreaming," The Elementary School Journal, 77(4), March, 1977, p. 319.

Because this situation existed, parents were often forced to find services for their children outside local school districts. This frequently involved great expense and travel within their own state or even into other states. Also, many children with undetected handicaps were in public school, but their handicaps prevented their acquiring an adequate education. Therefore, this law was passed to assure that all handicapped children would be provided an appropriate education, meeting their unique needs through special education and related services.[2]

A study by Ensher has shown that many students suffer not only the pain of their own disordered learning and emotional behaviors but also must bear the burdens of the inflexible attitudes of their teachers who view and treat them as mentally incompetent individuals. These attitudes may essentially constitute "a hidden handicap" for both student and teacher. This has resulted in excessive assistance, control and impatience, attention directed toward weaknesses rather than strengths, and blatant lack of expectations for positive change.

Often the ideas about handicapped individuals are inherent to a great degree in the eyes of the beholder, rather than in any innate, unchanging condition of the impairment.[3] Teacher trainees have negative stereotypical expectations of students labeled emotionally

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[2]Public Law 94-142 (November 29, 1975).

[3]Gail L. Ensher, "The Hidden Handicap: Attitudes Toward Children and Their Implication," Mental Retardation, 11(4), August, 1973, p. 40.

disturbed, even when observing a child that is actually normal but labeled disturbed. This situation often occurs because of the influence of experienced teachers who have not taught emotionally disturbed students and because of the inexperience of the trainees. The trainees altered their opinions somewhat when observing normal behavior but still held their overall negative expectations.[4]

A group of educable mentally retarded students had increased feelings of self-derogation after one year's placement in special classes.[5] A similar situation was manifest when teachers segregated students into three groups after only eight days of kindergarten. Physical appearance, social behavior, language dialect, and socio-economic status determined the group and table to which each child was assigned. Teacher interaction with students and negative attitudes of the teacher were shared by the students and maintained through grades one and two, regardless of performance or potential of a particular student.[6] An even more condemning assessment of teacher attitudes occurred when some elementary teachers were falsely told that certain students were late bloomers and could be expected to make

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[4]Glen G. Foster, James E. Ysseldyke, and James H. Reese, "I Wouldn't Have Seen It If I Hadn't Believed It," Exceptional Children, 41(7), April, 1975, p. 469.

[5]Joseph H. Meyerowitz, "Self Derogations in Young Retardates and Special Class Placement," Child Development, 33, 1962, p. 450.

[6]Ray C. Rist, "Student Social Class and Teacher Expectations: The Self-Fulfilling Prophecy in Ghetto Education," Harvard Educational Review, 40(3), August, 1970, pp. 446-447.

substantial gains in their academic achievement during the coming school year. Although there were no significant differences in ability between the experimental and control groups and no diffential gains should have been anticipated, the experimental group showed marked improvement in its academic performance and intelligence quotient (I.Q.). Yet, the control group did not show such improvement. Differences were attributed solely to teacher expectations and attitudes.[7]

According to Hudson, et al., mainstreaming programs were designed by specialists, with little or no input from those who would have to actually put them into practice. Although it was generally agreed that the more desirable situation for handicapped children was removal from special classes, many teachers expressed anxiety and uncertainty when actual placement of handicapped children in the regular classroom became imminent. Such concerns were to be expected, yet the expression of these concerns caused many to question teacher competence. Much was said about attitudes. Unfavorable attitudes toward special children in the regular classroom are a consequence of teachers' opinions that they do not have the time, the support services, or the necessary training to effectively teach these children. Class size, inaccessibility of materials, time restraints, and the unavailability of immediate and long-term support services are school-associated variables that appear to be related to unfavorable attitudes. Many

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[7]Robert Rosenthal and Lenore Jacobson, Pygmalion in the Classroom (New York: Holt, Rinehart, and Winston, Inc., 1968).

teachers still view special class placement as academically superior to regular classroom placement.[8]

Consequently, the attitudes of teachers toward their students might influence the quality of education received by all students, but especially those who are handicapped. Both positive and negative attitudes toward handicapped students certainly exist and must be identified. Although identification does not automatically guarantee improvement, the initial identification is of prime necessity. Therefore, there exists a need to determine those attitudes which teachers have concerning the teaching of handicapped students in the regular classroom.

II. STATEMENT OF THE PROBLEM

Public schools are not providing adequate education for the handicapped student population. School systems are making an effort to educate all students, but minimal success still exists in the education of the handicapped student. There are various causes for this situation. Some of the causes include inaccessibility of facilities, inadequate teacher preparation, insufficient funds, the lack of meaningful interaction between parents and school, and public bias concerning handicapped individuals. In addition to the preceding, teacher attitudes also may affect the quality of education.

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[8]Floyd Hudson, Steve Graham, and Michael Warner. "Mainstreaming: An Examination of the Attitudes and Needs of Regular Classroom Teachers," Learning Disability Quarterly, 2(3), Summer, 1979, p. 61.

The way in which teachers view handicapped students may reflect their attitudes toward teaching them. The perception of handicapped students as classroom assets or liabilities predicated on their capability, physical presence, and emotional capacity might shed light on the teacher's attitudes toward the handicapped student in the regular classroom. These attitudes might affect the quality of education the handicapped student would receive.

Handicapped students are receiving inadequate education for various reasons, including negative teacher attitudes. Before the quality of education for these students can be improved, teacher attitudes must be identified.

III. STATEMENT OF THE PURPOSE

The purpose of this study was to ascertain teacher attitudes toward handicapped students which might facilitate or inhibit the quality of education they receive. Teachers were asked to indicate their attitudes toward handicapped students in general. This information encompassed attitudinal indicators such as preparation, sympathy, communication, sense of ease, awareness of restrictions, appeal of teaching handicapped students, and ability to help them learn. The teachers also indicated their attitudes toward specific handicapping conditions--mentally retarded, language and/or speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, learning problems, and intellectually gifted.

IV. IMPORTANCE OF THE STUDY

To ascertain various teacher attitudes that might affect instruction for exceptional students has educational merit. Although identification does not guarantee improvement, it is a logical point of departure. An awareness of positive teacher attitudes toward exceptional students could indicate the possible avenues teachers might take to cope with mainstreaming. Those teachers who view teaching handicapped students in the regular classroom in a positive manner could possess the ability to enhance the education of such students. These positive attitudes could be encouraged to further improve the education of exceptional students. Furthermore, the recognition of negative attitudes about exceptional students could possibly lead to the introduction of corrective measures. If negative attitudes influence the self-concept of exceptional students in a detrimental manner and influence the way in which other students react to them, administrators and teachers should be desirous of change. Also, if negative teacher attitudes toward these students adversely affect the quality of instruction, education would be enhanced by change; especially if those changes could replace negative attitudes with positive ones, rather than merely eradicating those which are negative.

The passage of Public Law 94-142 mandates the least restrictive environment for all students. Interest in the best possible learning situation for all students virtually necessitates acceptance of any

student placed in a classroom. Thus, by sincerely considering the needs of both handicapped and nonhandicapped students, the quality of instruction for all students can be improved.

V. DEFINITION OF TERMS

Attitude. The manner of acting, feeling, or thinking that shows one's disposition, opinions, etc.

Emotionally disturbed. A behavior disorder marked by a deviation from age-appropriate behavior that significantly interferes with: (1) the child's own development, (2) the lives of others, or (3) both.

Exceptional child. A child who deviates from the average child: (1) in mental characteristics, (2) in sensory abilities, (3) in neuromotor or physical characteristics, (4) in social behavior, (5) in communication abilities, or (6) in multiple handicaps. Such deviation must be of such an extent that the child requires modification of school practices, or special educational services, to develop maximum capacity.

Intellectually gifted. A child with intellectual abilities and potential for accomplishment so outstanding as to require a variety of special provisions to meet the established educational needs and having an I.Q. at least two standard deviations above the norm as measured by an individual intelligence test.

Learning disabled. A disorder in one or more of the psychological processes involved in understanding or in using spoken or written language.

Least restrictive environment. A situation for educating exceptional children that is as close to a normal pattern as feasible with as much interaction with nonhandicapped peers as possible.

Mainstreaming. The education of handicapped children in regular classrooms with nonhandicapped students.

Mental retardation. A condition evidenced by: (1) subaverage intellectual functioning (an I.Q. of 84 and below on an individual intelligence test), (2) existence before the age of sixteen, (3) impairment in adaptive behavior. A slow learner is one who has an I.Q. of 70 to 85 on an individual intelligence test. Educable mentally retarded is one who has an I.Q. of 50 to 70 or 75 on an individual intelligence test. Trainable mentally retarded is one who has an I.Q. of 30 or 35 to 50 or 55 on an individual intelligence test.

Related services. The early identification and assessment of handicapping conditions in children, transportation, and such developmental, corrective, and other supportive services as may be required to assist a handicapped child to benefit from special education. These include speech pathology and audiology, psychological services, physical and occupational therapy, recreation, and medical and counseling services, except that such medical services shall be for diagnostic and evaluation purposes only.

Special classes. Those classes where the resource teacher assumes the major responsibility for educating the exceptional child.

VI. ASSUMPTIONS OF THE STUDY

The following assumptions were made with regard to this study:

1. Teacher attitudes toward exceptional students could be ascertained.

2. All schools selected were participating in or anticipating creating the least restrictive environment for all exceptional students.

3. Those teachers participating in the study cooperated by responding honestly to the questionnaire.

VII. QUESTIONS TO BE ANSWERED BY THE STUDY

The following questions will be answered by the study:

1. Are teacher attitudes affected by age, educational degree level, experience, preparation, or sex?

2. Does having a handicapped family member influence teachers' attitudes?

3. Does the absence or presence of supportive services possessed by the school system affect the teachers' attitudes?

4. Do the teachers' subject areas influence their attitudes?

5. Does the type of handicapping condition affect the teachers' attitudes?

6. Does having taught handicapped students influence teacher attitudes?

7. Does the type of handicapping condition of the students taught affect teachers' attitudes?

8. Do regular classroom teachers have positive or negative attitudes toward exceptional students?

VIII. LIMITATIONS AND DELIMITATIONS OF THE STUDY

As with all efforts to ascertain information, this study was bound by certain limitations and delimitations. The limitation of teachers' working on a nine month basis prohibited a follow-up of those who failed to return a questionnaire. Using only randomly selected secondary teachers in East Tennessee as respondents was a delimitation. These teachers were asked to respond to a questionnaire that would indicate their attitudes concerning exceptional students.

IX. ORGANIZATION OF THE STUDY

The reporting of this study is organized into five chapters, plus a Bibliography and an Appendix.

Chapter I introduces the problem, states the problem, states the purpose, gives the importance of the study, defines important terms within the study, gives the assumptions, questions to be answered by the study, the limitations and delimitations, and describes the organization of the study.

Chapter II presents a review of the literature.

Chapter III explains the methodology employed in the study.

Chapter IV furnishes the results of the study.

Chapter V gives a summary, findings, conclusions, and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

Many children not only suffer the pain of their own disordered learning and emotional behavior, but also are compelled to carry the burdens of inexorable attitudes of their teachers who view and treat them as incompetent individuals. For both the children and their teachers, such attitudes may constitute what is essentially "a hidden handicap." More than half of the teachers who participated in a study to ascertain attitudes toward handicapped children manifested behaviors encompassing "overprotection, overwhelming assistance, excessive control, impatience, incessent dwelling on weaknesses rather than on strengths, and conspicuously absent expectation for positive change with special children in their classes."[9]

While definitions of attitude vary, most include three aspects: an affective aspect--how a person feels about someone or something; a cognitive aspect--what a person believes about someone or something; and a behavioral aspect--how the person will tend to act in relation to someone or something.[10] This third aspect is of primary concern when one thinks of preparing the majority of the population for acceptance

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[9]Ensher, "The Hidden Handicap," p. 40.

[10]D. Krech, R.S. Crutchfield, and E.L. Ballachey. Individual in Society (New York: McGraw-Hill, 1962) p. 140.

of handicapped individuals, as these behavioral reactions are the ones which can hurt. Behavioral patterns are an outgrowth of feelings and beliefs and are an integral part of action.[11]

By the age of five or six, most children have acquired many expectations, feelings, beliefs, and behavioral tendencies in relation to other people. Even infants have been observed to smile at pictures of the human face and not to smile in reaction to a picture of the human face with scrambled features.[12] There also exists a remarkable uniformity in the hierarchy of preferences which children exhibited toward pictures of children with and without handicaps. Children with physical handicaps ranked drawings in the same way as children without physical handicaps--supporting Kurt Lewin's notion that the minority culture assimilates values of the majority culture. This widespread uniformity indicates that our culture espouses a deprecatory evaluation of persons with physical disabilities.[13]

Educators are members of society, and teachers' attitudes appear to be similar to the attitudes of the public. It may be hypothesized that unfavorable attitudes of the public toward disabled people may, at least in part, reflect the reactions of prejudiced teachers. If

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[11]Shirley Cohen, "Improving Attitudes Toward the Handicapped," The Educational Forum, 42(1), November, 1977, p. 11.

[12]Jerome Kagan, Barbara A. Henker, Any Hen-Toi, and Janet Levine, "Infants' Differential Reactions to Familiar and Distorted Faces," Child Development, 37(3), September, 1966, p. 530.

[13]Stephen A. Richardson, Albert H. Hastorf, Norman Goodman, and Sanford M. Dornbusch, "Cultural Uniformity in Reaction to Physical Disabilities," American Sociological Review, 26(2), April, 1961, p. 246.

the unfavorable attitudes of the public are to be changed, favorable attitudes must be fostered among teachers because they influence the value system of future generations.[14] This is supported by the fact that despite increasing public enlightenment about disabilities, popular stereotypes still remain.[15]

To understand teacher attitudes toward handicapped students, one must consider the teachers' expectations of these students in the classroom by first investigating the reasons teachers ask questions. To receive an anticipated answer, to motivate, to encourage could be possible goals of questioning. Therefore, the teacher tries to call on those pupils who are capable of satisfying these purposes; teachers do not call on pupils who consistently provide inappropriate responses. Often seeking reinforcement, teachers call on pupils for evidence of their teaching ability. Some teachers may reduce the number of opportunities for slow students to respond with the hope of reducing their anxiety, thereby removing them from criticism from their peer group.[16] Yet, this effort based on "kindness" has its negative results, as proven in a study of teacher behavior and poor academic achievement of Mexican-American students. This study showed the tendency of teachers to respond differently to identical behaviors exhibited by students of

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[14]Tali A. Conine, "Acceptance or Rejection of Disabled Persons by Teachers," The Journal of School Health, 39(4), April, 1969, p. 280.

[15]Edna Simon Levine, The Psychology of Deafness, Techniques of Appraisal for Rehabilitation (New York: Columbia University Press, 1960) p. 29.

[16]Thomas L. Good, "Which Pupils Do Teachers Call On?" The Elementary School Journal, 70(4), January 1970, p. 193.

different racial groups, socioeconomic statuses, or achievement levels.[17] This was also proven in Pygamalion in the Classroom when elementary teachers were falsely told that certain children were late bloomers and could be expected to make substantial gains in their academic achievement during the coming school year. Although there were no significant differences between the experimental and the control groups, and no differential gains should have been anticipated, the experimental group showed a marked improvement in its academic performance and I.Q. The control group did not show improvement. The differences were attributed solely to teacher expectations.[18] Yet, Pygamalion in the Classroom itself reflects the expectancy bias which is the creation of its authors.[19] But unlike much research in education and psychology, the Rosenthal and Jacobson study has already begun to have an effect on educational practice, although the evidence concerning the effects of giving teachers information about the abilities of their pupils on the pupils' academic performance remains equivocal.[20]

Coupled with varied teacher expectancies is the uncertainty manifested by many concerning mental retardation. Quite often teacher

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[17]Jere E. Brophy and Thomas L. Good, "Teachers' Communication of Differential Expectations for Children's Classroom Performance: Some Behavioral Data," Journal of Educational Psychology, 61(5), October, 1970, p. 373.

[18]Rosenthal and Jacobson, Pygmalion in the Classroom.

[19]Charlotte P. Taylor, The Expectations of Pygmalion's Creators," Educational Leadership, 28(2), November, 1970, p. 164.

[20]William L. Claiborn, "Expectancy Effects in the Classroom: A Failure to Replicate," Journal of Educational Psychology, 60(5), October, 1969, p. 383.

awareness of mental retardation stems from having known only one or two retarded individuals and is opinion only.[21] Studies have shown that teachers dislike the prospect of teaching mentally retarded individuals, second only to maladjusted students.[22] And teachers who entered special education after teaching normal children indicated a lack of desire to teach retarded students.[23] Education students reflect attitudes and preferences similar to those of experienced teachers.[24] However, direct experiences with retarded students did bring about a more positive attitude.[25]

Labeling differentially can affect teacher perception of exceptional children. Mentally retarded children were seen more positively when labeled than when unlabeled; whereas psychopathic, cerebral palsied, and schizophrenic children were reacted to more negatively when they remained unlabeled.[26] Also, many teachers reacted more positively toward learning disabled children than toward educable

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[21]Sandy Gart, "Do You Know What Retarded Means?" Instructor, 86(3), November, 1976, p. 112.

[22]M.I. Badt, "Attitudes of University Students Toward Exceptional Children and Special Education," Exceptional Children, 23(7), 1957, p. 336.

[23]C.E. Meyers, "Realities in Teacher Recruitment," Mental Retardation, 2(1), 1964, p. 46.

[24]W.C. Kvaraceus, "Acceptance-Rejection and Exceptionality," Exceptional Children, 22(8), 1956, p. 330.

[25]S.A. Warren and D.R. Turner, "Attitudes of Professionals and Students Toward Exceptional Children," Training School Bulletin, 62(4), 1966, p. 136.

[26]Ronald H. Combs and Jerry L. Harper, "Effects of Labels on Attitudes of Educators Toward Handicapped Children," Exceptional Children, 33(6), February, 1967, pp. 402-403.

mentally retarded or emotionally disturbed children.[27] Kingsley's study showed that secondary education majors preferred to teach intellectually gifted children and those who were economically and socially disadvantaged; while elementary majors preferred only the latter.[28] Teacher trainees held negative stereotypical expectations of children who were actually normal but labeled emotionally disturbed. The trainees altered their stereotype somewhat when observing normal behavior but still held some of their overall negative expectations.[29] In a study conducted with only normal students, some were labeled gifted, some normal, and some mentally retarded. Teachers reacted most positively to the "gifted" students and least favorably to the "retarded" ones--reinforcing the stereotypical attitudes toward exceptionality.[30]

A study done in Massachusetts showed that both teachers and future teachers rated acoustically handicapped individuals low in terms of desirability. The subjects interviewed revealed little knowledge about this handicap and indicated that the attitudes of others influenced

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[27]Jay R. Shotel, Richard P. Iano, and James F. McGettigan, "Teacher Attitudes Associated with the Integration of Handicapped Children," Exceptional Children, 38(9), May, 1972, p. 682.

[28]Ronald F. Kingsley, "Prevailing Attitudes Toward Exceptional Children," Education, 87(7), March, 1967, p. 427.

[29]Foster, et al., "I Wouldn't Have Seen It If I Hadn't Believed It," p. 469.

[30]John Salvia, G.M. Clark, and J.E. Ysseldyke, "Teacher Retention of Stereotypes of Exceptionality," Exceptional Children, 39(8), May, 1973, pp. 651-652.

their behavior in both theory and practice.[31] According to Myklebust, the acoustically handicapped, who may be thought of as a minority group, are often the object of biases and prejudices of the majority group.[32] In Horowitz and Rees' study there existed the tendency to label "deaf" all persons who have varying degrees of hearing loss, and respondents had the general impression that hearing aids guarantee normal hearing. The opinions and attitudes about the capabilities of deaf persons were both vague and varied.[33] In determining how prospective teachers felt toward the needs and problems of acoustically handicapped persons, Barker found that these future teachers had a fair amount of knowledge about acoustically handicapped individuals; and their attitudes were largely positive. A relatively high relationship existed between the attitudes and the amount of information possessed about acoustically handicapped persons.[34] Educators in general also rejected the idea of teaching children with visual impairments, possibly because they know little about this field.[35] Panda and Bartel found that teachers preferred

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[31]A.T. Murphy, Joan Dickstein, and Elaine Dripps, "Acceptance, Rejection, and the Hearing Handicapped," Volta Review, 62(5), 1960, pp. 210-211.

[32]H.R. Myklebust, The Psychology of Deafness, (New York: Greene and Stratton, 1960) p. 119.

[33]Leola S. Horowitz and Norma S. Rees, "Attitudes and Information About Deafness," Volta Review, 64, 1962, p. 188.

[34]Esther Temperley Barker, "A Survey of Prospective Teachers Concerning Attitudes Toward and Information About the Acoustically Handicapped," Thesis, University of Tennessee, 1964, p. 22.

[35]Albert T. Murphy, "Attitudes of Educators Toward the Visually Handicapped," The Sight-Saving Review, 30(3), Fall, 1960, p. 157.

gifted, normal, and delinquent students to all other exceptionalities. Those exceptionalities involving physical impairment were rated higher than mental retardation, cultural deprivation, and emotional maladjustment; thus, those exceptionalities labeled on sociopsychological grounds were lower than those labeled in terms of physical impairment.[36]

Studies conducted about the preparation of prospective teachers and in-service programs for experienced teachers revealed interesting findings about teacher attitudes toward teaching exceptional students. Short-term educational exposure to mental retardation for prospective teachers did not greatly affect attitudes.[37] And existing negative attitudes toward mental retardation were reinforced for education students through a "lecture-discussion-guided tour" technique. The short duration of the institution visit had an especially negative impact.[38] A study by Semmel questions the implied relationship between correct information pertaining to mental deficiency and teacher attitudes toward retarded students.[39] Yet, a study conducted by Proctor provides

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[36]Kailas C. Panda and Nettie R. Bartel, "Teacher Perception of Exceptional Children," The Journal of Special Education, 6(3), 1972, p. 265.

[37]Sandra Moss Edgerly, "A Study of the Attitudes of Prospective Teachers Toward Educable Mentally Retarded Students and Toward Special Education for the Educable Mentally Retarded," Thesis, University of Tennessee, 1968, p. 41.

[38]Sue Allen Warren, Dale R. Turner, and David S. Brody, "Can Education Students' Attitudes Toward the Retarded Be Changed?" Mental Retardation, 2(4), August, 1964, p. 235.

[39]Melvyn I. Semmel, "Teacher Attitudes and Information Pertaining to Mental Deficiency," American Journal of Mental Deficiency, 63, 1959, p. 573.

data to strengthen the concept that orientation programs designed to develop knowledge and understanding about exceptional children and to create more positive teaching approaches and attitudes toward them would be an effective way to improve the classroom integration for exceptional children.[40] While the type of experience is related to knowledge, the amount of experience, per se, is not related to either knowledge about or classroom acceptance of exceptional children.[41] Somewhat contradictory of the results of Proctor's study are those of a study by Harasymiw and Horne. The latter indicates that teacher opinions and attitudes on the integration of handicapped students into the regular classroom can be modified through an in-service program. This would provide teachers with additional knowledge about the handicapped student, classroom experiences in working with special needs of children, and support of administration and resource personnel. While teachers became more liberal in their opinions and assessments of the manageability of disabled students in the regular classroom, their basic attitudes toward disability groups were not changed. The implications are that teachers can be rendered less anxious about working with handicapped students, but to change basic social distance attitudes may

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[40]Doris Ione Proctor, "An Investigation of the Relationships Between Knowledge of Exceptional Children, Kind, and Amount of Experience, and Attitudes Toward Their Classroom Integration," Dissertation Abstracts, 28, 1967, p. 1721A.

[41]John E. Jordan and Doris I. Proctor, "Relationships Between Knowledge of Exceptional Children, Kind, and Amount of Experience with Them, and Teacher Attitudes Toward Their Classroom Integration," The Journal of Special Education, 3(4), Winter, 1969, p. 438.

require a much more prolonged procedure of familiarization with various disabilities to modify underlying social distances.[42] Regardless of these varying implications, evidence does not support the idea that a change in practice should wait until attitudes are fully receptive to the change proposed. The need is immediate.[43]

Although teachers often initially exhibited negative attitudes concerning handicapped children, teachers were primarily receptive to special students once they received some background information on exceptional children. These teachers were willing to work with a special student only if a resource teacher was involved with establishing goals and objectives for the child. When confronted with the suggestion of placing a special child in the classroom without the aid of the resource teacher, the regular classroom teachers were not willing to accept the child. Many still believed in labels and waited for the special child to react in a bizarre or atypical manner.[44] Many regular teachers are not willing to accept children found in special education programs because of a lack of knowledge concerning the role and function of special education. A concentrated effort to acquaint the regular

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[42]S.J. Harasymiw and Marcia D. Horne, "Teacher Attitudes Toward Handicapped Children and Regular Class Integration," The Journal of Special Education, 10(4), Winter, 1976, p. 400.

[43]Evelyn N. Deno, Editor, "Where Do We Go From Here?" in Instructional Alternative for Exceptional Children (Reston, Virginia: The Council for Exceptional Children, 1973), p. 176.

[44]W. Johnson, "A Study to Determine Teacher Attitude Toward Teaching Special Children with Regular Children," Dekalb, Illinois: Northern Illinois University, 1972, Eric Ed 065 950, p. 11.

teacher with attitudes and behavioral aspects has proven beneficial.[45] Thus, teachers are generally more accepting of special students if they can rely on support from other personnel.[46]

The positive reasons for integrating the handicapped child are of great magnitude. Results of studies indicated that the handicapped and nonhandicapped children in the integrated setting improved as much as or more than handicapped and nonhandicapped children in a segregated setting, in the areas of academic skills, social behavior, and attitude change. Also, participation in in-service seminars by the teachers apparently produced changes in teacher behavior and more willingness to apply what they had learned.[47] In addition, special education teachers consider personal and social adjustment aspects of the educative process of major importance when compared to subject matter acquisition. Potential academic achievement will not be realized without concurrent instruction in the personal and social areas.[48] And it is, indeed, ironic that educational resources, initially conceived to facilitate learning in children termed "mentally retarded," may run directly counter

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[45]Benjamin L. Brooks and Louis A. Bransford, "Modification of Teachers' Attitudes Toward Exceptional Children," Exceptional Children, 38(3), November, 1971, p. 260.

[46]Thomas P. Gullotta, "Teacher Attitudes Toward the Moderately Disturbed Child," Exceptional Children, 4(1), September, 1974, p. 49.

[47]Robert H. Bradfield, Josephine Brown, Phyllis Kaplan, Edward Rickert, and Robert Stannard, "The Special Child in the Regular Classroom," Exceptional Children, 39(5), February, 1973, pp. 384, 390.

[48]Leo J. Schmidt and Calvin C. Nelson, "The Affective/Cognitive Attitude Dimension of Teachers of Educable Mentally Retarded Minors," Exceptional Children, 35(9), May, 1969, p. 700.

to the central objective, and primarily contribute to the development and continuance of maladaptive behavior.[49]

The acceptance of special children within the classroom is even more necessary when one views the results of their exclusion. In one instance, a group of educable mentally retarded children had increased feelings of self-derogation after one year's placement in a special class.[50] In another case, after only eight days in kindergarten, the children had been segregated by the teacher into three groups, each of which sat at a different table. Physical appearance, social behavior, language dialect, and socioeconomic status were the four variables which determined the group and table to which each child was assigned. Teacher interaction with students and negative attitudes of the teacher were shared by the students. It was observed that similar classroom structure and hierarchy were maintained in grades one and two regardless of performance or potential of the particular child.[51]

According to Yuker, disabled persons' attitudes toward themselves are much more important than the nature or extent of their disabilities. Disabled persons who accept themselves and their disabilities tend to be relatively well-adjusted, highly motivated, and hard working, regardless of the extent of their physical disabilities. They are the ones who emphasize ability, not disability. Acceptance of disabled persons

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[49]Ensher, "The Hidden Handicap," p. 41.

[50]Meyerowitz, "Self Derogations in Young Retardates and Special Class Placement," p. 450.

[51]Rist, "Student Social Class and Teacher Expectations: The Self-Fulfilling Prophecy in Ghetto Education," pp. 446-447.

should not be confused with a lack of prejudice toward them. People can be both accepting and prejudiced. They must also maintain a constant awareness of the possibility of prejudice and must react to people as individuals rather than as members of a particular group.[52] This same awareness must be extended to students in the classroom.

Cited examples of the integration of exceptional children in the public schools on a part-time or full-time basis indicate that the knowledge teachers have concerning exceptional students has an influence on the social and emotional adjustment of children in terms of teacher-student interaction and the relationship between exceptional students and other students. Also, past research lends support to the assumption that the attitudes of teachers influence the attitudes of children whom they teach.[53] A study by Carroll showed educable mentally retarded students who remained in a regular classroom for a half-day evidenced an improved self-concept, while segregated educable mentally retarded students who had no contact with normal students were significantly more self-derogatory.[54]

Recently, numerous writings from diverse sources have appeared suggesting that special provisions for mildly retarded students do more

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[52]Harold E. Yuker, "Attitudes As Determinants of Behavior," Journal of Rehabilitation, 31(6), November-December, 1965, p. 16.

[53]N.G. Haring, G.C. Stern, and William Cruickshank, Attitudes of Educators Toward Exceptional Children (New York: Syracuse University, 1958).

[54]Anne W. Carroll, "The Effects of Segregation and Partially Integrated School Programs on Self-Concept and Academic Achievement of Educable Mentally Retarded," Exceptional Children, 34(2), October, 1967, p. 97.

harm than good. According to Kolstoe, some of the allegations include the following: mental retardation is noticeable during school years, but the condition disappears in adult years; special class placement is detrimental to the self-concept; teachers contribute to the self-fulfilling prophecy of low achievement; general education is capable of dealing adequately with individual differences in the regular classroom; and labeling harms children.[55] Ysseldyke and Foster showed that deviancy labels generated initial negative stereotypes which were retained in the observance of behavior inconsistent with the labels. This alteration of teacher expectancy toward the child can result in an alteration of the teacher's objective evaluation of a child's behavior.[56] Other self-concept problems created by labeling were cited by Reynolds and Balow. They include the tendency to stereotype the stigmatic nature of labeling resulting in scapegoating.[57] Research studies have shown that when persons have obvious physical handicaps, they are perceived as inferior to normal or gifted persons, no matter how well they behave. Such a negative stereotype might well affect the social adjustment and academic accomplishments of the exceptional child.[58]

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[55]Oliver P. Kolstoe, "Programs for the Mildly Retarded: A Reply to the Critics," Exceptional Children, 39(1), September, 1972, p. 51.

[56]James E. Ysseldyke and Glen Foster, "Bias in Teachers' Observance of Emotionally Disturbed and Learning Disabled Children," Exceptional Children, 44(8), May, 1978, p. 615.

[57]Maynard Reynolds and Bruce Balow, "Categories and Variables in Special Education," Exceptional Children, 39(5), January, 1972, p. 357.

[58]Panda and Bartel, "Teacher Perceptions of Exceptional Children," p. 261.

As Roy Dickerson said in the Journal of Rehabilitation, "What I thought about myself and my handicap (as well as what I believed others to think) actually caused me more pain than the handicap itself."[59] It is important that teachers help emotionally disturbed persons to cultivate a wholesome attitude toward their handicap. This can only be totally effective if the teacher has a wholesome attitude. Many emotionally handicapped individuals have had their attitude toward themselves molded by the same kind of prejudice that caused ancestors to believe disturbed persons to be demon-possessed.[60]

Yet, acceptance is often difficult for regular classroom teachers. It must be realized that they have made a heavy investment to become teachers, but their preparation may not include dealing with special children. Also, these teachers may feel that their enterprise is being disrupted by a seeming misfit.[61] In addition, the building level principal, by virtue of the leadership role, must be considered a key person in the success or failure of integrating special children into the regular school program. A study by Payne and Murray indicated that urban elementary principals were more reluctant to integrate handicapped children into the regular program than were their suburban counterparts. Thus, because of administrative support, integrative

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[59]D. Roy Dickerson, Jr., "Myths and Misconceptions of Mental Illness," Journal of Rehabilitation, 46(2), April/May/June, 1980, p. 28.

[60]Dickerson, "Myths and Misconceptions of Mental Illness," p. 30.

[61]Iris Major, "How Do We Accept the Handicapped," The Elementary School Journal, 61(3), March, 1961, pp. 329-330.

programs would have a better chance of success in the suburban school setting.[62] The attitudes and actions of the principal toward handicapped students and programs for them may be emulated by the teachers.[63] Therefore, many factors influence the acceptance of handicapped children into the regular school program.

Because of the necessity of acceptance of the special child into the regular classroom, programs were designed to prepare teachers for this integrative process. The results indicate the feasibility of re-educating classroom teachers to work with handicapped children in the regular classroom setting. Retraining programs, in-service experiences, and workshop approaches would appear to be viable.[64] Yet, a possible drawback seems to be a lack of communication between teachers and specialists--the same specialists who can be an asset with their needed information. The reasons for this problem are varied. First, it is not uncommon for the teacher to refer a child to a specialist and receive in return a formal evaluation merely labeling the child as having the problem which initiated the referral. Second, all too often the explanation of what to do is presented briefly, rather

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[62]Reed Payne and Charles Murray, "Principal's Attitudes Toward Integration of the Handicapped," Exceptional Children, 41(2), October, 1974, p. 125.

[63]Tom E.C. Smith, "Attitudes of Principals and Teachers Toward Mainstreaming Handicapped Children," The Journal of Special Education, 16(1), Fall, 1979, p. 89.

[64]Stefan J. Harasymiw and Marcia D. Horne, "Integration of Handicapped Children: Its Effects on Teacher Attitudes," Education, 96(2), Winter, 1975, p. 157.

rapidly and somewhat superficially. Third, difficulties may also arise because specialists will not "risk" coming into the classroom and doing what they are asking the teacher to do. Fourth, schedules for all school personnel are frequently demanding. Too often a formal conference about a child is not held because of a lack of time, and suggested procedures are communicated to the classroom teacher in the hallway as the class is on the way to lunch, recess, or home.[65]

To help counteract the possible impediments to acceptance are those individuals with a high degree of contact with handicapped children. They tend to have more information about physical disabilities and a more positive attitude toward physically disabled persons. Also, attitudes become more positive as the information levels increased.[66] In addition, members of the same staff have similar attitudes. And attitudes of administrators are important for creating and maintaining programs. Furthermore, special education teachers' attitudes are crucial because of the influence they have on regular classroom teachers, consultants, and aides.[67]

Teaching special children also has a definite bearing on teacher status. Since teachers rate tasks differently, their perceptions of

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[65]Hal W. Seaton, Elaine Z. Lasky, and Jane B. Seaton, "Teacher and Specialist--A Communication Gap?" Education, 95(1), Fall, 1974, pp. 90-91.

[66]Reginald W. Higgs, "Attitudes Formation--Contact or Information?" Exceptional Children, 41(7), April, 1975, p. 497.

[67]Gilbert R. Guerin and Kathleen Szatlocky, "Integration Programs for the Mildly Retarded," Exceptional Children, 41(3), November, 1974, p. 179.

status relates to their experiences, attitudes, and available information. Teaching regular pupils is rated lower than teaching special classes, except that teaching in hospitals is held in comparatively low esteem.[68] Those teachers judged to possess the highest standing are the ones who teach blind, deaf, gifted, emotionally disturbed, and severely mentally retarded students.[69] Thus, it is desirable for teachers to inform each other about their work to encourage more favorable attitudes and to try to ensure that the various teaching tasks have equal status. This would foster greater unity between different groups and would assist in integrating handicapped children into the regular classroom.[70] Also, results of a study by Zucker indicate that the attitudes of special education teachers as measured by the Minnesota Teacher Attitude Inventory remain stable. This five year study shows stability but neither the presence nor absence of quality.[71] Yet,this stability could, indeed, be a positive factor in the integrative process.

Therefore, the success of the integration of the handicapped child into the regular school program will ultimately depend on the

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[68]Derek Sharples and David J. Thomas, "The Perceived Prestige of Normal and Special Education Teachers," Exceptional Children, 35(6) February, 1969, p. 473.

[69]R.L. Jones and N.W. Gottfried, "The Prestige of Special Education Teaching," Exceptional Children, 32(7), March, 1966, p. 465.

[70]David Thomas and D. Sharples, "How Teachers See Their Status," Special Education, 58(3), September, 1969, p. 9.

[71]Stanley H. Zucker and Edward L. Meyen, "Attitudinal Stability of Teachers of Exceptional Children," The Journal of Experimental Education, 43(3), Spring, 1975, p. 96.

attitudes of regular classroom teachers toward integration and the children being integrated.[72] In time, educators may come to realize that notions of "handicapped" are inherent to a far greater degree in the eyes of the beholder than any innate, unchanging conditions of the impairment.[73]

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[72]Donald L. MacMillan, C. Edward Meyers, and Roland K. Yoshida, "Regular Class Teachers' Perceptions of Transition Programs for Educable Mentally Retarded Students and Their Impact on the Students," Psychology in the Schools, 15(1), January, 1978, p. 99.

[73]Ensher, "The Hidden Handicap," p. 41.

CHAPTER III

METHODOLOGY

I. INTRODUCTION

The purpose of this chapter is to describe the research methodology employed in the study. The methodology included the determination of an appropriate teacher population and sample, the selection of research techniques, and the administration of the questionnaire. Finally, the coding and the analysis of the data are discussed.

II. SELECTION OF POPULATION AND SAMPLE

Secondary school teachers were chosen as participants. Those schools having twelfth grades were designated as secondary schools. No vocational or special schools were surveyed. The specific schools were in Congressional Districts 1, 2, and 3 to guarantee representation in upper, middle, and lower eastern Tennessee, respectively. This random sample also allowed for representation of urban and rural schools, large and small schools, and high and low concentrations of minority students.

The total teacher population of the 108 secondary schools in Congressional Districts 1, 2, and 3 was 4419.[74] According to Krejcie

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[74] 1979-80 Directory of Public Schools, Approved Private, and Special Schools for 1978-1979 and the State Department of Education, State of Tennessee (Nashville, Tennessee: State Department of Education, 1979), No. 0381.

and Morgan's chart on determining sample size for research activity, the minimum acceptable sample size, based on the total population, was 354.[75] To ensure an adequate sample, 30 schools were selected. Because the study was conducted in late April, a follow-up was not possible therefore, an additional six schools, two from each district, were chosen. The distribution of the schools was as follows: first Congressional District - 34 percent, second Congressional District - 38 percent, and third Congressional District - 27 percent. Because of this distribution, 10 schools from each Congressional District were chosen. The total teacher population indicated that 67 percent of the participants should be drawn from county systems and 33 percent from city systems. This distribution was adhered to in the selection of participating schools.

III. SELECTION OF RESEARCH TECHNIQUES

The primary data gathering instrument of the study was a questionnaire developed by the writer. A review of research indicated that no validated instrument existed which would adequately collect data needed to complete the study. Therefore, the researcher developed an instrument using the Osgood Semantic Differential Technique. This technique used polar adjectives to measure attitudes through semantic

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[75]Robert V. Krejcie and Daryl W. Morgan, "Determining Sample Size for Research Activities," Educational and Psychological Measurement, 30, 1970, p. 608.

space. A seven-point scale enabled the researcher to evaluate the expressed attitudes of individuals on selected concepts. The polar adjectives were divided into subgroups of evaluation, potency, and activity for further diagnostic data.

Polar adjectives selected for evaluative, potency, and activity factors were those deemed most reliable through research by Osgood.[76] According to Osgood,

> A pervasive evaluative factor in human judgment regularly appears first and accounts for approximately one-half to three-fourths of the extractable variance. . . . The second dimension of the semantic space to appear is usually the potency factor, and this typically accounts for approximately one-half as much variance as the first factor . . . . The third dimension, usually about equal to or a little smaller in magnitude than the second, is the activity factor.[77]

Based on this concept, six of the scales formed the evaluative dimension: valuable-worthless, clean-dirty, healthy-sickly, good-bad, calm-excitable, pleasant-unpleasant. Two of the scales for each concept comprised the potency dimension: small-large, strong-weak. The other two scales for each concept made up the activity dimension of the semantic differential: active-passive, fast-slow. These 10 scales were used for each of the 10 concepts. The concepts were in the order in which they appeared in the Tennessee State Board of Education Manual of Rules, Regulations, and Minimum Standards,

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[76]Charles E. Osgood, George J. Suci, and Percy H. Tannenbaum, The Measurement of Meaning (Urbana, Illinois: University of Illinois Press, 1957) p. 37.

[77]Ibid, pp. 72-73.

1979-1980.[78] The adjectives were arranged randomly with arbitrary reversal of polarization.

A trial test was administered to a selected group of graduate students at the University of Tennessee in the Department of Educational Administration and Supervision to determine the clarity of instructions and methods used, as well as the appropriateness of proposed adjectives.

> An instrument may be said to have "face validity" to the extent that the distinctions it provides correspond with those which would be made without the instrument . . . results to be expected from common sense.[79]

Some potential factors influencing teacher attitudes toward exceptional students were derived from the review of the literature, while others were arbitrarily chosen. Those influencing factors obtained from the literature are: (1) a teacher's having previously taught students diagnosed as exceptional, (2) the absence or presence of supportive services, (3) appropriate preparation, and (4) the absence or presence of a personal affinity for exceptional students. As possible influencing factors, age, educational degree, teaching experience, subject area, sex, and absence or presence of a handicapped family member were selected arbitrarily.

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[78]"Special Education Programs and Services, Requirement H," Rules, Regulations, and Minimum Standards 1979-1980 (Nashville, Tennessee: Curely Printing Company, July, 1979) No. 0360, pp. 69-90.

[79]Osgood, Suci, and Tannenbaum, The Measurement of Meaning, p. 141.

IV. ADMINISTRATION OF THE QUESTIONNAIRE

After the selection of the 36 schools, packets were assembled for mailing to the schools. Each packet included a cover letter (Appendix A) addressed to the principal explaining the study and requesting permission for faculty participation. The number of accompanying explanatory letters (Appendix B) and questionnaires (Appendix C) to teachers was based on the specific faculty size as stated in the Directory.[80] Two days after mailing the packets, the researcher telephoned each principal to ascertain whether the school would participate. Principals of those participating schools were asked to place questionnaires in the school mail boxes of individual faculty members. To facilitate responding, self-addressed, stamped envelopes were attached to the questionnaires.

V. CODING OF THE DATA

Each questionnaire was divided into two major areas: demographic information and possible sources of problems, with the latter subdivided into teacher-related and student-related problems.

Demographic data were collected in nine questionnaire items. An Arabic "1" was assigned if the item were checked, and a "0" was assigned if the item were not checked, with the exception of item 7

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[80] 1979-80 Directory of Public Schools, Approved Private, and Special Schools for 1978-1979 and the State Department of Education, State of Tennessee (Nashville, Tennessee: State Department of Education, 1979), No. 0381.

for which "0" had a value and for which "9" was assigned if this item were not checked.

In the teacher-related possible sources of problems, there was a seven-point scale for the seven variables. The following sample item illustrates the coding assigned to each scale.

STRONGLY AGREE _____:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

A B C D E F G

The position coded "A" is labeled "strongly agree"; the position coded "D" is labeled "neutral"; and the position coded "G" is labeled "strongly disagree." Positions coded "B" and "C" denote agreement between "strongly agree" and "neutral." Positions coded "E" and "F" denote disagreement between "neutral" and "strongly disagree."

In the student-related possible sources of problems, there was a seven-point scale for the 10 concepts of exceptionality. The following sample item illustrates the coding assigned to each scale.

BAD _____:_____:_____:_____:_____:_____:_____ GOOD

1 2 3 4 5 6 7

The position coded "4" is labeled "neutral," the positions coded "3" and "5" are labeled "only slightly related" to the concept, the positions coded "2" or "6" are labeled "quite closely related" to the concept, and the "1" and "7" positions "very closely related" to the concept.[81]

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[81]Charles E. Osgood, "The Nature and Measurement of Meaning," in Semantic Differential Technique, ed. James G. Snider and Charles E. Osgood (Chicago, Illinois: Adine Publishing Co., 1969), p. 67.

VI. ANALYSIS OF THE DATA

Osgood, Suci, and Tannenbaum show that semantic differential methodology generates a vast amount of data that may be analyzed in various ways.[82] For use in attitude studies, it is only necessary to "merely sum over the evaluative ratings to obtain the attitude 'scores.'"[83]

The "D" statistic, $D_{i1} = \sqrt{E_j d_{i1}^2}$, was used, designating "D" to be the linear distance between any two ideas, "i" and "1," and "d" is the algebraic difference between the coordinates of "i" and "1" on the same dimension factor, "j."[84] This formula was utilized to predict the magnitude of distance between the attitudes of teachers who had and had not taught specific categories of exceptional students.

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[82] Osgood, Suci, and Tannenbaum, The Measurement of Meaning, pp. 76-124.

[83] Ibid., p. 191.

[84] Ibid., p. 91.

CHAPTER IV

RESULTS OF THE STUDY

I. INTRODUCTION

The purpose of this study was to ascertain the various teacher attitudes toward handicapped students which might facilitate or inhibit the quality of education they receive.

A stratified, random sample involving 36 secondary schools in Tennessee Congressional Districts 1, 2, and 3 was chosen for this study. Twelve schools were selected to participate from each of the three Districts with approximately 67 percent being in county systems and 33 percent city. Of the 36 schools asked to participate, 27 agreed to do so, and 25 actually responded. The total teacher population of these 25 schools was 761, and of that number, there was a return rate of 371, 49 percent. The 347 usable responses were 46 percent of the teacher population of the responding 25 schools. Therefore, the response rate was acceptable.

To facilitate understanding of the seven-point scale for the semantic differential, 1.00 to 1.99 and 7.00 were interpreted as "very closely related" to the concept; 2.00 to 2.99 and 6.00 to 6.99 denoted "quite closely related" to the concept; 3.00 to 3.99 and 5.00 to 5.99 indicated "only slightly related" to the concept; and 4.00 to 4.99 was neutral. Evaluation, potency, and activity were the three areas used to ascertain teacher attitudes toward exceptional students. The evaluation area designated worth; potency was the

capacity for development; and activity was the normal power of mind or body. The designation of attitudes was based on the evaluation ratings.

The following abbreviations and shortened forms were used in all charts, tables, and graphs in Chapter IV.

Mentally retarded	M.R.
Language and/or speech disordered	L./S.D.
Blind and visually limited	B./V.L.
Deaf and hearing impaired	D./H.I.
Learning disabled	L.D.
Behavioral disordered	B.D.
Physically handicapped	P.Hc.
Multiple handicapped	M.Hc.
Learning problems	L.P.
Intellectually gifted	I.G.
Teachers who had taught exceptional students	Had taught
Teachers who had not taught exceptional students	Had not taught
Evaluation	E.
Potency	P.
Activity	A.

II. INFLUENCE OF DEMOGRAPHIC DATA ON TEACHER ATTITUDES

Correlation matrices were developed to address teacher attitudes as influenced by various demographic data. The analysis

of the data in relation to the following questions indicated whether or not the data influenced teacher attitudes.

1. Are teacher attitudes affected by age, educational degree level, experience, preparation, or sex?

Age may or may not affect teachers' attitudes toward exceptional students. Table 1 is a 10 x 24 correlation matrix which illustrates the influence of age on teacher attitudes. Each age group on the matrix is further divided to show which teachers had and which had not taught exceptional students.

Teachers 30 years or younger who had taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted, and slightly negative toward behavioral disordered. Teachers in this age group who had not taught exceptional students were slightly positive toward intellectually gifted, and neutral toward language and speech disordered, blind and visually limited, and deaf and hearing impaired. They indicated attitudes slightly negative toward mentally retarded, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, and learning problems. Teachers who had and had not taught exceptional students shared neutral attitudes toward two exceptionalities--language and speech disordered, and deaf and hearing impaired--and slightly negative attitudes toward behavioral disordered.

TABLE 1. Mean Evaluation, Potency, and Activity Relationship Scores by Age of Teachers, Who Had and Had Not Taught Exceptional Students, and Exceptionalities

	30 Years or Younger						31 to 40 Years						41 to 50 Years						51 Years or Older					
	Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught		
	E.*	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.
M.R.*	4.34	4.01	3.43	3.57	3.76	2.71	4.17	3.99	3.41	4.07	3.50	2.94	4.15	3.99	3.32	4.69	3.93	3.93	4.19	3.91	3.34	4.75	4.25	2.75
L./S.D.	4.43	3.93	3.80	4.15	4.11	4.06	4.52	3.98	3.83	4.39	3.93	4.11	4.57	3.95	3.88	4.52	4.14	4.43	4.35	3.68	4.02	4.67	3.25	3.25
B./V.L.	4.55	4.02	3.81	4.28	3.88	4.78	4.62	4.00	3.75	4.37	3.94	3.76	4.56	3.96	3.60	4.60	3.79	4.00	4.62	3.89	4.09	4.00	4.00	4.00
D./H.I.	4.51	4.08	3.77	4.29	4.03	3.65	4.66	4.14	4.15	4.71	4.07	4.16	4.45	4.04	4.11	4.58	4.00	4.08	4.47	4.10	4.29	4.00	4.00	4.00
L.D.	4.32	3.98	3.71	3.81	3.68	3.74	4.18	4.07	3.80	4.09	3.58	3.75	4.34	3.99	3.58	4.50	4.07	4.00	4.25	4.02	3.84	4.92	3.75	2.50
B.D.	3.64	4.32	4.76	3.32	4.09	4.32	3.68	4.13	4.47	3.72	4.57	4.50	3.76	4.13	4.37	3.98	4.29	4.86	4.04	4.33	4.40	3.50	4.50	5.00
P.Hc.	4.20	3.69	3.68	3.64	3.26	3.24	4.34	3.82	3.78	4.26	3.11	4.00	4.36	3.74	3.42	4.42	3.64	3.71	4.42	3.95	3.98	4.70	4.50	3.50
M.Hc.	4.08	3.84	3.31	3.28	3.15	2.59	4.18	3.70	3.37	3.96	4.11	3.29	4.08	3.78	3.20	4.31	3.79	3.79	4.36	3.98	3.32	4.00	3.00	3.00
L.P.	4.11	4.00	3.46	3.99	4.03	3.89	4.24	3.90	3.52	4.22	4.00	3.72	4.19	3.88	3.75	4.33	4.00	3.58	4.23	3.78	3.34	5.00	3.75	2.75
I.G.	4.79	4.24	5.13	5.52	4.72	5.88	5.03	4.19	5.36	5.09	4.39	5.50	5.15	4.30	5.40	4.86	4.21	5.79	4.82	4.06	5.33	5.92	4.50	6.25

*See page 39 for explanations of abbreviations.

Teachers 31 to 40 years of age who had taught exceptional students envinced slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems. Toward behavioral disordered they were slightly negative. Teachers in this age group who had not taught exceptional students were slightly positive toward intellectually gifted and neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and learning problems. Their attitudes toward behavioral disordered and multiple handicapped were slightly negative. Teachers who had and had not taught exceptional students were slightly positive toward intellectually gifted, neutral toward seven exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and learning problems--and slightly negative toward behavioral disordered.

Teachers who were 41 to 50 years old and who had not taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems. They had negative attitudes toward behavioral disordered. Teachers in this age group who had not taught

exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted and slightly negative attitudes toward behavioral disordered. Teachers who had and had not taught exceptional students had concurring neutral attitudes toward eight exceptionalities--mentally retarded, language disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems--and slightly negative attitudes toward one exceptionality--behavioral disordered.

Teachers 51 years or older who had taught exceptional students were neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, learning problems, and intellectually gifted. Teachers in this age group who had not taught exceptional students indicated slightly positive attitudes toward learning problems and intellectually gifted. They were neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and multiple handicapped and slightly negative toward behavioral disordered. Teachers who had and had not taught exceptional students shared neutral attitudes toward seven exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and multiple handicapped.

Age does affect teacher attitudes toward exceptional students. Of the teachers who had taught exceptional students, those in the 41 to 50 range indicated the most positive attitudes--toward intellectually gifted, and those in the 30 years and younger range indicated the most negative attitudes--toward behavioral disordered. Of the teachers who had not taught exceptional students, those in the 51 years and older group indicated the most positive attitudes--toward intellectually gifted--and those in the 30 years and younger range indicated the most negative attitudes--toward multiple handicapped.

The potency ratings of teachers who had taught exceptional students indicated that those who were 31 to 40 years old viewed exceptional students most positively in their capacity for development, and teachers 41 to 50 years of age were at the opposite pole. The potency ratings of teachers who had not taught exceptional students indicated that teachers 30 years and younger viewed exceptional students most positively in their capacity for development; and teachers 51 years and older were the opposite, in that they considered exceptional students lacking this capacity.

Based on the activity ratings of teachers who had taught exceptional students, teachers 51 years and older were the most positive in their views of exceptional students' power of mind and body, and teachers 41 to 50 years old were the most negative. The activity ratings of teachers who had not taught exceptional students indicated that teachers 41 to 50 years old had the most positive attitudes toward exceptional students' power of mind and body and teachers 30 years or younger had the most negative attitudes.

Academic degree may or may not affect teacher attitudes toward exceptional students. Table 2 is a 10 x 21 correlation matrix which illustrates the influence of educational degree on teacher attitudes. Each educational degree level on the matrix is further divided to show which teachers had and which had not taught exceptional students.

Teachers who had earned bachelor's degrees and had taught exceptional students evinced neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted and slightly negative attitudes toward behavioral disordered. Teachers in this category who had not taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward language and speech disordered, blind and visually limited, deaf and hearing impaired, and learning problems. They were slightly negative toward mentally retarded, learning disabled, behavioral disordered, physically handicapped, and multiple handicapped. Teachers who had and had not taught exceptional students shared neutral attitudes toward four indicators--language and speech disordered, blind and visually limited, deaf and hearing impaired, and learning problems--and slightly negative attitudes toward behavioral disordered.

Teachers with master's degrees who had taught exceptional students had slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech

TABLE 2. Mean Evaluation, Potency, and Activity Relationship Scores by Academic Degree Level of Teachers, Who Had and Had Not Taught Exceptional Students, and Exceptionalities

	Bachelor's						Master's						Specialist's						Doctorate					
	Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught		
	E.*	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.
M.R.*	4.30	4.03	3.49	3.74	3.76	2.74	4.12	3.95	3.17	4.00	3.73	3.00	4.67	4.38	3.63	6.00	4.00	6.00	4.42	3.75	3.50			
L./S.D.	4.44	3.89	3.75	4.18	3.95	3.76	4.56	3.98	3.92	4.44	3.95	3.83	4.90	3.81	4.19	6.50	4.00	6.00	4.83	3.75	4.50			
B./V.L.	4.69	4.01	3.95	4.32	3.94	3.26	4.53	3.96	3.56	4.24	3.75	3.50	4.76	4.08	3.70	6.17	3.50	6.00	4.83	3.75	4.50			
D./H.I.	4.62	4.07	3.94	4.35	4.03	3.84	4.51	4.16	4.31	4.50	4.05	4.05	4.90	4.08	4.71	6.33	4.00	5.00	4.67	4.25	4.00			
L.D.	4.21	3.99	3.80	3.95	3.82	3.49	4.19	4.06	3.73	4.32	3.86	3.41	4.42	4.00	3.75	6.17	4.00	6.00	4.42	4.25	4.50			
B.D.	3.75	4.17	4.57	3.49	4.42	4.34	3.72	4.26	4.10	3.39	4.07	4.39	4.19	4.14	4.19	6.17	4.00	6.00	4.17	4.50	4.75			
P.Hc.	4.36	3.83	3.73	3.85	3.23	3.63	4.26	3.57	3.69	3.98	3.37	3.54	4.58	4.07	3.64	5.83	3.50	5.00	4.67	4.00	3.75			
M.Hc.	4.17	3.80	3.35	3.55	3.58	2.89	4.05	3.79	3.32	3.54	3.45	2.79	4.36	4.00	3.14	5.83	3.50	5.50	4.42	3.75	3.25			
L.P.	4.17	3.88	3.39	4.26	4.08	4.00	4.18	3.91	3.63	4.00	3.95	3.41	4.52	3.93	3.69	6.17	4.00	6.00	4.42	4.50	4.50			
I.G.	4.86	4.20	5.22	5.37	4.63	5.75	5.10	4.21	5.34	5.23	4.32	5.73	5.12	4.14	5.50	6.17	4.00	6.00	5.25	4.50	5.50			

*See page 39 for explanations of abbreviations.

disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems. They were slightly negative toward behavioral disordered. Teachers who had not taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, and learning problems. They were slightly negative toward behavioral disordered, physically handicapped, and multiple handicapped. Teachers who had and had not taught exceptional students shared slightly positive attitudes toward intellectually gifted, neutral attitudes toward six exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, and learning problems, and slightly negative attitudes toward behavioral disordered.

Teachers with specialist's degrees who had taught exceptional students indicated positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, and learning problems. Only one teacher with a specialist's degree had not taught exceptional students, limiting further analysis.

The response from persons with an earned doctorate degree, two, was insufficient for further analysis.

The educational degree level does affect teacher attitudes toward exceptional students. Teachers who had taught exceptional students and who had earned specialist's degrees indicated the most positive attitudes--toward intellectually gifted--and those who had earned master's degrees indicated the most negative attitudes--toward behavioral disordered. Teachers with bachelor's degrees who had not taught exceptional students indicated the most positive attitudes--toward intellectually gifted--and those with master's degrees indicated the most negative attitudes--toward behavioral disordered.

The potency ratings of teachers who had taught exceptional students showed that teachers with both master's and specialist's degrees were the most positive toward exceptional students' capacity for development, and teachers with bachelor's degrees viewed these students as lacking this capacity. The potency ratings of teachers who had not taught exceptional students indicated that teachers with bachelor's degrees viewed exceptional students' capacity for development the most positively, and teachers with master's degrees viewed this capacity the most negatively.

According to the activity rating of teachers who had taught exceptional students, teachers with master's degrees were the most positive in their views of exceptional students' power of mind and body, and teachers with specialist's degrees were the most negative. The activity ratings of teachers who had not taught exceptional students were the same for teacher's with bachelor's and master's degrees in both the most positive and the most negative attitudes.

Years of experience may or may not affect teachers' attitudes toward exceptional students. Table 3 is a 10 x 24 correlation matrix which illustrates the influence of experience on teacher attitudes. Each range of experience on the matrix is further divided to show which teachers had and which had not taught exceptional students.

Teachers with one to three years of experience who had taught exceptional students were neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted. They were slightly negative toward behavioral disordered. Teachers in this range of experience who had not taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward blind and visually limited, and deaf and hearing impaired. These teachers were slightly negative toward mentally retarded, language and speech disordered, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, and learning problems. Teachers who had and had not taught exceptional students shared neutral attitudes toward two exceptionalities--blind and visually limited, and deaf and hearing impaired--and slightly negative attitudes toward behavioral disordered.

Teachers with four to nine years of experience who had taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted.

TABLE 3. Mean Evaluation, Potency, and Activity Relationship Scores by Years of Experience of Teachers, Who Had and Had Not Taught Exceptional Students, and Exceptionalities

	1 to 3 years of experience						4 to 9 years of experience						10 to 20 years of experience						More than 20 years of experience					
	Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught		
	E.*	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.
M.R.*	4.33	3.97	3.63	3.43	3.80	2.65	4.26	4.06	3.33	4.13	3.41	3.08	4.13	3.97	3.31	4.50	4.00	3.29	4.39	3.92	3.62	4.72	4.33	3.67
L./S.D.	4.41	3.92	3.95	3.91	3.86	3.71	4.57	3.80	3.82	4.58	4.38	4.20	4.54	3.92	3.79	4.33	3.71	3.93	4.40	3.89	3.96	4.94	4.00	5.00
B./V.L.	4.49	3.97	3.91	4.52	3.79	2.86	4.63	3.98	3.69	4.50	4.13	3.88	4.69	3.99	3.71	4.28	4.00	4.00	4.75	3.97	4.02	4.83	3.67	4.33
D./H.I.	4.41	3.94	3.82	4.23	3.92	3.42	4.63	4.11	3.97	4.49	4.13	4.04	4.69	4.14	4.21	4.53	4.10	4.40	4.51	4-07	4.32	5.00	4.17	4.33
L.D.	4.29	4.00	3.43	3.65	3.69	3.54	4.22	3.98	3.88	4.15	3.79	4.09	4.22	4.07	3.73	4.38	3.79	3.36	4.21	3.95	3.87	5.00	4.00	4.00
B.D.	3.67	4.43	4.74	3.27	4.07	4.19	3.71	4.14	4.56	3.50	4.45	4.33	3.66	4.13	4.71	3.89	4.17	4.42	3.94	4.33	4.41	4.50	4.33	6.17
P.Hc.	4.17	3.76	3.66	3.46	3.03	2.96	4.34	3.63	3.67	4.32	3.50	3.92	4.27	3.75	3.57	4.34	3.93	3.86	4.52	3.94	4.00	4.44	3.50	3.83
M.Hc.	4.05	3.83	3.21	3.06	2.96	2.27	4.19	3.82	3.27	4.06	3.83	3.41	3.97	3.64	3.34	3.97	4.00	3.42	4.45	4.05	3.58	4.44	3.83	3.67
L.P.	4.13	4.08	3.36	3.79	3.96	3.75	4.24	3.86	3.49	4.32	4.00	3.94	4.16	3.93	3.55	4.44	4.08	2.86	4.32	3.82	3.67	4.67	4.00	5.33
I.G.	4.88	4.29	5.41	5.48	4.57	5.77	4.94	4.16	5.18	5.36	4.44	5.96	5.08	4.28	5.40	4.93	4.43	5.50	4.80	4.08	5.11	5.11	4.17	5.83

*See page 39 for explanations of abbreviations.

They were slightly negative toward behavioral disordered. Teachers with the same experience who had not taught exceptional students were slightly positive toward intellectually gifted and neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems. These teachers were slightly negative toward behavioral disordered. Teachers who had and had not taught exceptional students agreed with neutral attitudes toward eight exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems.

Teachers with 10 to 20 years of experience who had taught exceptional students were slightly positive toward intellectually gifted and neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and learning problems. These teachers were slightly negative toward behavioral disordered and multiple handicapped. Teachers having 10 to 20 years of experience who had not taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, learning problems, and intellectually gifted. They were slightly negative toward behavioral disordered and multiple handicapped. These teachers who had and had not taught exceptional students shared neutral attitudes toward seven

exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and learning problems.

Teachers with more than 20 years of experience who had taught exceptional students were neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted and were slightly negative toward behavioral disordered. Teachers in this group who had not taught exceptional students indicated slightly positive attitudes toward deaf and hearing impaired, learning disabled, and intellectually gifted. They were neutral toward mentally retarded, language and speech disordered, blind and visually limited, physically handicapped, behavioral disordered, multiple handicapped, and learning problems. Teachers who had and had not taught exceptional students shared neutral attitudes toward six exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, physically handicapped, multiple handicapped, and learning problems.

Years of experience do affect teacher attitudes toward exceptional students. Teachers with 10 to 20 years of experience indicated both the most positive attitudes--toward intellectually gifted--and the most negative attitudes--toward behavioral disordered--of all the teachers who had taught exceptional students. Teachers with one to three years of experience indicated both the most positive attitudes--toward intellectually gifted--and the most negative attitudes--toward

multiple handicapped--of the teachers who had not taught exceptional students.

The potency ratings of teachers who had taught exceptional students showed that teachers with one to three years of experience had the most positive attitudes toward the capacity for development of exceptional students, and teachers with more than 20 years of experience had the most negative attitudes. The potency ratings of teachers who had not taught exceptional students showed that teachers with both 4 to 9 and 10 to 20 years of experience had the most positive attitudes toward the capacity for development of exceptional students, and teachers with 1 to 3 years of experience had the most negative attitudes.

The activity ratings of teachers who had taught exceptional students showed that teachers with 20 or more years of experience had the most positive attitudes about exceptional students' power of mind and body, and teachers with 1 to 3 years of experience were the most negative.

Preparation in special education may or may not affect teacher attitudes toward exceptional students. Table 4 is a 10 x 27 correlation matrix which illustrates the influence the number of special education courses taken has on teacher attitudes. Each number of special education courses on the matrix is further divided to show which teachers had or had not taught exceptional students.

Teachers with no academic courses in special education who had taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited,

TABLE 4. Mean Evaluation, Potency, and Activity Relationship Scores by Academic Courses in Special Education of Teachers, Who Had and Had Not Taught Exceptional Students, and Exceptionalities

	0						1						2						3						4					
	Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught		
	E.*	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.
M.R.*	4.12	3.99	3.40	3.77	3.86	2.88	4.32	3.96	3.36	3.67	3.38	3.12	4.24	4.19	3.22	4.88	4.13	3.13	4.40	4.08	3.96				4.53	3.97	3.46	4.25	3.50	3.00
L./S.D.	4.54	3.91	3.93	4.20	3.98	3.94	4.40	4.09	3.64	4.38	4.00	3.50	4.61	3.91	3.83	5.04	3.63	3.13	4.40	3.83	3.63				4.52	3.86	3.95	4.75	3.75	4.75
B./V.L.	4.49	3.99	3.96	4.20	3.90	3.44	4.61	4.01	3.70	4.44	3.50	3.12	4.88	4.03	3.42	5.56	4.17	3.83	4.92	3.95	3.90				4.75	4.07	4.07	4.09	4.00	4.25
D./H.I.	4.62	4.10	4.13	4.28	4.07	3.73	4.57	4.17	4.07	4.28	4.13	4.75	4.77	4.10	3.71	5.61	4.33	4.50	4.68	4.00	4.00				4.32	4.09	4.21	4.53	4.00	4.00
L.D.	4.24	4.03	3.85	3.90	3.82	3.63	4.14	4.03	3.54	3.72	4.00	4.63	4.12	4.02	3.70	5.29	3.75	3.13	4.11	3.96	3.63				4.59	4.09	3.99	4.33	4.00	4.00
B.D.	3.58	4.16	4.53	3.44	4.18	4.37	3.71	4.15	4.50	3.00	4.12	4.75	3.67	4.37	4.77	4.61	4.50	4.67	3.62	4.09	4.36				3.88	4.39	4.66	4.33	4.00	4.00
P.Hc.	4.43	3.62	3.72	3.68	3.08	3.28	4.43	3.80	3.67	3.89	3.13	3.50	4.42	3.93	3.70	5.31	4.25	3.75	4.71	4.05	3.82				4.46	3.85	3.85	4.33	4.00	4.00
M.Hc.	4.25	3.81	3.35	3.43	3.52	2.92	4.16	3.68	3.34	3.75	3.37	2.63	4.19	4.00	3.23	4.67	4.33	3.83	4.40	3.65	3.70				4.32	3.84	3.34	4.15	3.50	3.75
L.P.	4.29	3.92	3.54	4.06	4.04	3.63	4.21	3.84	3.43	3.56	3.50	4.00	4.11	3.73	3.63	5.38	4.50	3.50	4.11	3.58	3.13				4.42	4.16	3.93	4.25	4.00	4.00
I.G.	5.02	4.17	5.35	5.35	4.30	5.72	4.81	4.24	5.44	5.39	5.00	5.88	4.82	4.00	5.37	5.79	4.50	6.25	4.75	4.13	5.25				4.99	4.41	5.02	4.25	4.75	5.00

*See page 39 for explanations of abbreviations.

deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems. Their attitudes were slightly negative toward behavioral disordered. Teachers who had not taught exceptional students had slightly positive attitudes toward intellectually gifted; neutral attitudes toward language and speech disordered, blind and visually limited, deaf and hearing impaired, and learning problems; and slightly negative attitudes toward mentally retarded, learning disabled, behavioral disordered, physically handicapped, and multiple handicapped. Teachers who had and had not taught exceptional students evinced similar slightly positive attitudes toward intellectually gifted; neutral attitudes toward four indicators--language and speech disordered, blind and visually limited, deaf and hearing impaired, and learning problems; and slightly negative attitudes toward behavioral disordered.

Teachers who had taken one special education course and who had taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted and slightly negative attitudes toward behavioral disordered. Teachers who had not taught exceptional students were slightly positive toward intellectually gifted, neutral toward language and speech disordered, blind and visually limited, and deaf and hearing impaired, and slightly negative toward mentally retarded, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, and learning problems. Teachers who had and had not

taught exceptional students indicated neutral attitudes toward three exceptionalities--language and speech disordered, blind and visually limited, and deaf and hearing impaired--and slightly negative attitudes toward behavioral disordered.

Teachers who had had two academic courses in special education and who had taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted and negative attitudes toward behavioral disordered. Teachers who had not taught exceptional students were slightly positive toward language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, learning problems, and intellectually gifted. They were neutral toward mentally retarded, behavioral disordered, and multiple handicapped. Teachers who had and had not taught exceptional students shared neutral attitudes toward two exceptionalities--mentally retarded and multiple handicapped.

Teachers who had had three special education courses and who had taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted. They had slightly negative attitudes toward behavioral disordered. There were no teachers who had had three special

education courses and who had not taught exceptional students, limiting further analysis.

Teachers who had had four or more academic courses in special education and who had taught exceptional students were neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted and slightly negative toward behavioral disordered. There were no teachers who had had four or more special education courses and who had not taught exceptional students, prohibiting further analysis.

Academic preparation in special education does affect teacher attitudes toward exceptional students. Teachers who had taught exceptional students and who had had no special education courses indicated the most positive attitudes--toward intellectually gifted--and those without special education courses also indicated the most negative attitudes--toward behavioral disordered. Teachers who had not taught exceptional students and who had had two special education courses indicated the most positive attitudes--toward intellectually gifted--and those with one special education course indicated the most negative attitudes--toward behavioral disordered.

The potency ratings of teachers who had taught exceptional students show that teachers having had four or more special education courses indicated the most positive attitudes toward exceptional students' capacity for development, and teachers having had three

special education courses viewed these students as lacking this capacity. The potency ratings of teachers who had not taught exceptional students indicated that teachers having had two special education courses were the most positive toward exceptional students' capacity for development, and teachers without special education courses were the most negative toward potency.

According to the activity ratings of teachers who had taught exceptional students, teachers who had had four or more special education courses were the most positive in their views of exceptional students' power of mind and body, and teachers having had two special education courses were the most negative. The activity ratings of teachers who had not taught exceptional students showed that teachers having had two special education courses were the most positive and teachers with no special education were the most negative.

The sex of teachers may or may not affect teacher attitudes toward exceptional students. Table 5 is a 10 x 12 correlation matrix which illustrates the possible influence of sex on teacher attitudes. Both sexes on the matrix are further divided to show which teachers had or had not taught exceptional students.

Male teachers who had taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted, and slightly negative attitudes toward behavioral disordered. Male teachers who had not taught exceptional students evinced slightly positive attitudes toward

TABLE 5. Mean Evaluation, Potency, and Activity Relationship Scores by Sex of Teachers, Who Had and Had Not Taught Exceptional Students, and Exceptionalities

	Male						Female					
	Had Taught			Had Not Taught			Had Taught			Had Not Taught		
	E.*	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.
M.R.*	4.30	3.98	3.38	3.54	3.94	2.81	4.20	4.01	3.35	4.25	3.70	3.10
L./S.D.	4.47	3.85	3.88	4.17	3.90	3.66	4.41	3.95	3.85	4.40	3.97	4.03
B./V.L.	4.76	4.04	3.90	4.21	3.61	3.18	4.51	3.97	3.66	4.43	4.00	3.68
D./H.I.	4.71	4.09	4.16	4.38	3.96	3.69	4.49	4.09	3.95	4.48	4.07	4.00
L.D.	4.29	4.02	3.83	3.70	3.59	3.50	4.15	4.03	3.65	4.34	3.84	3.91
B.D.	3.83	4.17	4.47	3.26	4.00	3.91	3.57	4.20	4.52	3.77	4.37	4.86
P.Hc.	4.47	3.87	3.72	3.60	2.87	2.75	4.24	3.68	3.68	4.38	3.65	4.08
M.Hc.	4.27	3.78	3.32	3.01	3.15	2.69	4.02	3.80	3.27	4.15	3.78	3.16
L.P.	4.26	3.91	3.55	4.00	4.13	3.44	4.15	3.88	3.46	4.25	3.84	3.85
I.G.	4.94	4.13	5.13	5.64	4.53	5.72	4.93	4.28	5.41	5.05	4.53	5.85

*See page 39 for explanations of abbreviations.

intellectually gifted and neutral attitudes toward language and speech disordered, blind and visually limited, deaf and hearing impaired, and learning problems. They had slightly negative attitudes toward mentally retarded, learning disabled, behavioral disordered, physically handicapped, and multiple handicapped. Male teachers who had and who had not taught exceptional students shared neutral attitudes toward four exceptionalities--language and speech disordered, blind and visually limited, deaf and hearing impaired, and learning problems--and slightly negative attitudes toward behavioral disordered.

Female teachers who had taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted and slightly negative attitudes toward behavioral disordered. Female teachers who had not taught exceptional students had slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems. Their attitudes toward behavioral disordered were slightly negative. Female teachers who had and had not taught exceptional students had neutral attitudes toward eight exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems--and slightly negative attitudes toward behavioral disordered.

The sex of teachers does affect teacher attitudes toward exceptional students. Of the teachers who had taught exceptional students, male teachers indicated the most positive attitudes--toward intellectually gifted--and female teachers indicated the most negative attitudes--toward behavioral disordered. Of the teachers who had not taught exceptional students, male teachers had both the most positive attitudes--toward intellectually gifted--and the most negative attitudes--toward multiple handicapped.

The potency ratings of teachers indicated that of teachers who had and had not taught exceptional students, females had the most positive attitudes toward exceptional students' capacity to develop, and male teachers had the most negative attitudes.

The activity ratings of teachers who had taught exceptional students showed that male teachers had the most positive attitudes toward exceptional students' power of body and mind, and female teachers had the most negative attitudes. The activity ratings of teachers who had not taught exceptional students indicated that female teachers had the most positive attitudes, and male teachers had the most negative attitudes.

2. Does having a handicapped family member influence teachers' attitudes?

Having a handicapped family member may or may not affect teachers' attitudes toward exceptional students. Table 6 is a 10 x 12 correlation matrix which illustrates the influence of having a handicapped family member on teacher attitudes. The matrix is

TABLE 6. Mean Evaluation, Potency, and Activity Relationship Scores by Teachers Having a Handicapped Family Member, Who Had and Had Not Taught Exceptional Students, and Exceptionalities

	Yes						No					
	Had Taught			Had Not Taught			Had Taught			Had Not Taught		
	E.*	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.
M.R.*	4.47	4.00	3.66	4.25	3.50	3.00	4.15	3.97	3.27	3.90	3.78	2.97
L./S.D.	4.65	4.09	4.01	4.75	3.75	4.50	4.39	3.86	3.83	4.28	3.95	3.80
B./V.L.	4.78	4.11	3.96	4.28	4.16	3.83	4.53	3.97	3.72	4.33	3.83	3.42
D./H.I.	4.80	4.10	4.26	4.58	4.72	4.16	4.49	4.10	3.99	4.40	4.10	3.87
L.D.	4.23	4.06	3.84	4.50	4.00	4.00	4.18	4.01	4.77	4.00	3.71	3.70
B.D.	3.70	4.13	4.42	4.44	4.00	4.33	3.65	4.22	4.49	3.45	4.21	4.44
P.Hc.	4.70	3.91	3.88	4.39	4.00	4.00	4.22	3.69	3.72	3.93	3.25	3.45
M.Hc.	4.28	3.86	3.53	4.21	3.50	3.75	4.08	3.78	3.29	3.57	3.50	2.90
L.P.	4.26	3.95	3.59	4.25	4.00	4.00	4.16	3.90	3.53	4.13	3.98	3.37
I.G.	5.13	4.29	5.37	4.61	4.75	5.00	4.95	4.20	5.30	5.37	4.51	5.83

*See page 39 for explanations of abbreviations.

further divided to show which teachers had and had not taught exceptional students.

Teachers having a handicapped family member indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems. Their attitudes were slightly negative toward behavioral disordered. Teachers who had not taught exceptional students were neutral toward all 10 exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, learning problems, and intellectually gifted.

Teachers who had no handicapped family members and who had taught exceptional students were neutral toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted. They were slightly negative toward behavioral disordered. Teachers who had not taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, and learning problems. Their attitudes were slightly negative toward mentally retarded, behavioral disordered, physically handicapped, and multiple handicapped. Teachers without a handicapped family member who had or had not taught exceptional

students shared neutral attitudes toward five exceptionalities--language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, and learning problems and slightly negative attitudes toward behavioral disordered.

Having a handicapped family member does affect teacher attitudes toward exceptional students. Of the teachers who had taught exceptional students, those who had a handicapped family member indicated the most positive attitudes--toward intellectually gifted--and those who had no handicapped family members indicated the most negative attitudes--toward behavioral disordered. Of the teachers who had not taught exceptional students, those teachers who had no handicapped family members indicated attitudes that were the most positive--toward intellectually gifted--and the most negative--toward behavioral disordered.

The potency ratings of teachers who had taught exceptional students indicated those who had a handicapped family member viewed exceptional students most positively in their capacity for development, and teachers without a handicapped family member viewed them most negatively. The potency ratings of teachers who had not taught exceptional students indicated that teachers with a handicapped family member were most positive and those without a handicapped family member were most negative.

The activity ratings of teachers who had taught exceptional students indicated that those who had a handicapped family member were the most positive in their attitudes toward exceptional students' power of mind and body, and teachers without a handicapped family

member were the most negative. The activity ratings of teachers who had not taught exceptional students were the same as those who had; teachers having a handicapped family member were the most positive, and teachers without a handicapped family member were the most negative.

3. Does the absence or presence of supportive services possessed by the school system affect the teachers' attitudes?

The absence or presence of supportive services may or may not affect teacher attitudes. Teacher responses about the absence or presence of supportive services are seen in Table 7. Teachers were inconsistent in their responses. School 06 ranged from 2 to 19 teachers' viewing their school as having various supportive services, with 1 teacher indicating no services. School 14 was more nearly in agreement with a range of five to seven. Because of the inconsistencies of the responses, the absence or presence of supportive services is not a valid indicator for teacher attitudes.

The responses indicated that 22.9 percent of the teachers viewed their schools as having resource teachers, 21.7 percent as having resource materials, and 18.8 percent as having psychological services. The percentages of teachers viewing their schools as having other supportive services were considerably less. Only .9 percent indicated that their schools had no supportive services.

4. Do teachers' subject areas influence their attitudes?

Subject areas may or may not affect teachers' attitudes toward exceptional students. Table 8 is a 10 x 24 correlation matrix which indicates whether teachers' subject areas affect their attitudes toward exceptional students. Each of the four subject areas

TABLE 7. The Number of Supportive Services in Individual Schools As Indicated by Teachers

School Code	Resource Materials	Resource Teachers	Administrative Support	Psychological Services	Adaptive C. Services	Spec. Educ. Supervisors	None of These Services	Total of Responses
01	4	7	2	3		6		8
02	12	10	16	11	2	14	1	19
03	5	6	4	4	1	4		6
04	7	7	3	7	2	3		12
05	18	11	8	10		15	1	20
06	13	19	8	12	2	18	1	26
08	25	16	17	16	4	12		31
10	8	2	5	5			1	9
12	6	9	7	5		6	1	11
14	6	7	6	7		5		7
17	7	7	3	5	2	3		7
18	16	18	16	15	9	13		20
20	12	16	11	16		6		18
22	10	11	5	8	1	6		13
23	9	15	7	5	1	8		15
24	12	15	7	6		11		16
25	3	5	3	2		2	4	11
26	13	16	10	16	4	7		18
27	6	6	5	9	2	7		9
29	13	14	14	14	1	8		19
31	4	6	3	1		2	1	8
33	3	1	3	2		2		4
34	21	25	19	24	6	11		25
35	6	6	3	2		3		7
36	6	5	4	8	2	5		8

TABLE 8. Mean Evaluation, Potency, and Activity Relationship Scores by Subject Area of Teachers, Who Had and Had Not Taught Exceptional Students, and Exceptionalities

	English, Science, Social Studies, Math						Foreign Language, Music, Art						Voc. Tech., Physical Education, Health						Psychology, Special Education, Other					
	Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught			Had Taught			Had Not Taught		
	E.*	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.	E.	P.	A.
M.R.*	4.11	4.01	3.33	4.00	3.50	3.04	4.03	3.90	2.85	3.72	4.17	2.67	4.32	3.99	3.29	2.81	3.30	2.00	4.34	3.96	3.44	4.40	4.00	3.42
L./S.D.	4.47	3.94	3.79	4.40	4.21	3.71	4.28	3.60	3.95	4.00	3.58	3.42	4.46	3.78	3.81	4.17	3.70	3.10	4.41	4.06	3.98	4.41	3.96	4.50
B./V.L.	4.53	3.99	3.68	4.57	4.08	3.29	4.74	3.89	4.00	4.17	3.50	3.00	4.62	3.97	3.80	3.80	3.40	2.70	4.62	3.98	3.84	4.38	3.96	4.08
D./H.I.	4.47	4.10	3.91	4.56	4.00	3.42	4.81	4.22	4.50	4.00	4.00	4.30	4.53	4.07	3.93	4.43	4.00	3.40	4.64	4.04	4.27	4.50	4.08	3.29
L.D.	4.17	4.01	3.68	4.03	3.82	3.82	4.07	4.00	3.55	3.83	3.67	3.33	4.16	3.96	3.76	3.60	3.60	3.50	4.28	4.03	3.75	4.33	3.77	3.92
B.D.	3.62	4.19	4.51	3.63	4.29	4.29	3.51	4.10	4.20	2.77	4.00	4.10	5.70	4.12	4.30	3.13	3.70	3.90	3.72	4.23	4.55	3.91	4.38	4.88
P.Hc.	4.22	3.68	3.61	4.28	3.38	3.63	4.28	3.70	3.60	3.32	3.25	2.92	4.32	3.80	3.72	3.00	2.70	2.20	4.43	3.73	3.79	4.35	3.50	4.12
M.Hc.	3.97	3.73	3.19	3.79	3.04	2.75	4.24	3.83	3.33	2.73	3.50	2.10	4.20	3.85	3.41	2.57	3.00	2.20	4.24	3.83	3.40	4.23	4.12	3.77
L.P.	4.14	3.90	3.57	4.04	3.92	3.15	3.85	3.85	3.80	4.17	3.83	4.00	4.21	3.89	3.33	3.87	4.50	3.90	4.28	3.88	3.53	4.32	3.92	3.96
I.G.	5.09	4.23	5.38	5.26	4.46	6.13	5.07	4.30	5.85	5.83	5.00	6.25	4.83	4.14	5.12	5.80	4.40	5.40	4.81	4.20	5.24	4.92	4.38	5.42

*See page 39 for explanations of abbreviations.

groups on the matrix is further divided to show which teachers had and which had not taught exceptional students. The rationale for grouping subject areas was that English, science, social studies, and math (Group 1) are the basic subjects for high school students. Foreign language, music, and art (Group 2) are enrichment courses. Vocational technology, physical education, and health (Group 3) are physically and practically oriented subjects. Psychology, special education, and other (Group 4) are grouped because the first two are closely related, and only 47 respondents were in the "other" category.

Teachers who had taught exceptional students in Group 1 had slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and learning problems. Their attitudes were slightly negative toward behavioral disordered and multiple handicapped. Teachers who had not taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and learning problems. They had slightly negative attitudes toward behavioral disordered and multiple handicapped. Teachers in Group 1 who had and had not taught exceptional students shared the same attitudes toward all 10 exceptionalities; slightly positive--toward intellectually gifted; neutral--toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled,

physically handicapped, and learning problems; slightly negative--toward behavioral disordered and multiple handicapped.

In Group 2, teachers who had taught exceptional students had slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, and multiple handicapped. They had slightly negative attitudes toward behavioral disordered and learning problems. Teachers who had not taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward language and speech disordered, blind and visually limited, deaf and hearing impaired, and learning problems. They had slightly negative attitudes toward mentally retarded, learning disabled, and physically handicapped and quite negative attitudes toward behavioral disordered and multiple handicapped. In Group 2 teachers who had and had not taught exceptional students shared attitudes toward five exceptionalities; slightly positive--toward intellectually gifted; neutral--toward language and speech disordered, blind and visually limited, and deaf and hearing impaired; and slightly negative--toward behavioral disordered.

Teachers in Group 3 who had taught exceptional students had slightly positive attitudes toward intellectually gifted and neutral attitudes toward the other nine descriptors--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted. Teachers

who had not taught exceptional students indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward language and speech disordered and deaf and hearing impaired. They had slightly negative attitudes toward blind and visually limited, learning disabled, behavioral disordered, physically handicapped, and learning problems and quite negative attitudes toward mentally retarded and multiple handicapped. Teachers in Group 3 who had and had not taught exceptional students concurred in neutral attitudes toward two exceptionalities--language and speech disordered, and deaf and hearing impaired.

Teachers in Group 4 who had and had not taught exceptional students shared neutral attitudes toward nine descriptors--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted--and slightly negative attitudes toward behavioral disordered.

Subject areas do affect teacher attitudes toward exceptional students. Of the teachers who had taught exceptional students, those in Group 3 indicated the most positive attitudes--toward behavioral disordered--and those in Group 2 had the most negative attitudes--toward behavioral disordered. Of the teachers who had not taught exceptional students, those in Group 2 indicated the most positive attitudes--toward intellectually gifted--and teachers in Group 3 had the most negative attitudes--toward multiple handicapped.

The potency ratings of teachers who had taught exceptional students indicated that teachers in Group 4 viewed most positively

exceptional students' capacity for development, and teachers in Group 2 viewed this capacity most negatively. The potency ratings of teachers who had not taught exceptional students indicated teachers in Group 1 were the most positive and teachers in Group 3 were the most negative.

Based on the activity ratings of teachers who had taught exceptional students, teachers in Group 4 were the most positive toward exceptional students' power of mind and body, and teachers in Group 1 were the most negative. The activity ratings of teachers who had not taught exceptional students indicated that teachers in Group 4 were the most positive, and teachers in Group 3 were the most negative.

5. Does the type of handicapping condition affect the teachers' attitudes?

The type of handicapping condition may or may not affect teachers' attitudes. Table 9 is a 10 x 13 correlation matrix which indicates whether the type of handicapping condition affects teacher attitudes.

The respondents indicated slightly positive attitudes toward intellectually gifted and neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems. Their attitudes were slightly negative toward behavioral disordered. The attitudinal hierarchy from most positive to most negative was intellectually gifted, blind and visually limited, deaf and hearing impaired,

TABLE 9. Mean Evaluation, Potency, and Activity Relationship Scores of Teacher Attitudes by Individual Polar Adjectives, and Exceptionalities

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
M.R.*	4.95	4.24	3.88	4.49	3.38	4.16	4.18	3.74	4.17	3.96	4.03	2.54	3.29
L./S.D.	5.04	4.48	4.56	4.39	3.78	4.32	4.43	3.93	3.92	3.93	4.15	3.53	3.84
B./V.L.	5.07	4.53	4.25	4.70	4.16	4.63	4.56	3.96	3.97	3.99	3.83	3.59	3.72
D./H.I.	5.15	4.51	4.53	4.52	4.09	4.49	4.53	3.93	4.21	4.08	4.19	3.83	4.01
L.D.	4.77	4.29	4.17	4.28	3.41	4.21	4.19	4.03	3.93	3.98	4.14	3.29	3.72
B.D.	4.52	4.02	4.08	3.68	2.30	3.27	3.65	3.90	4.48	4.19	5.39	3.54	4.47
P.Hc.	4.96	4.23	3.70	4.44	3.92	4.35	4.27	3.82	3.52	3.67	3.82	3.50	3.66
M.Hc.	4.65	4.07	3.33	4.25	3.85	4.12	4.05	4.00	3.50	3.75	3.50	3.01	3.26
L.P.	4.81	4.29	4.19	4.08	3.58	4.13	4.18	3.93	3.88	3.91	4.05	3.39	3.53
I.G.	5.99	5.06	5.09	5.09	3.78	5.06	5.01	3.84	4.65	4.24	5.13	5.60	5.36

*See page 39 for explanations of abbreviations.

language and speech disordered, physically handicapped, learning disabled, mentally retarded, learning problems, multiple handicapped, and behavioral disordered.

The type of handicapping condition does minimally affect teacher attitudes toward exceptional students, especially toward behavioral disordered and intellectually gifted.

6. Does having taught handicapped students influence teacher attitudes?

Having taught handicapped students may or may not influence teacher attitudes toward exceptional students. Table 10 is a 10 x 13 correlation matrix which indicates the attitudes of teachers who had taught exceptional students. Table 11 is a 10 x 13 correlation matrix which indicates the attitudes of teachers who had not taught exceptional students.

Teachers who had taught exceptional students indicated neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, learning problems, and intellectually gifted. Their attitudes were slightly negative toward behavioral disordered. Teachers who had not taught exceptional students had neutral attitudes toward language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, learning problems, and intellectually gifted. Their attitudes were slightly negative toward mentally retarded, behavioral disordered, physically handicapped, and multiple handicapped. Teachers who had and had not taught exceptional students shared neutral

TABLE 10. Mean Evaluation, Potency, and Activity Relationship Scores of Teachers, Who Had Taught Exceptional Students by Individual Polar Adjectives, and Exceptionalities.

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
M.R.*	4.98	4.26	3.94	4.53	3.40	4.18	4.22	3.77	4.20	3.99	4.08	2.58	3.34
L./S.D.	5.07	4.47	4.57	4.42	3.77	4.35	4.44	3.93	3.92	3.92	4.16	3.52	3.85
B./V.L.	5.15	4.56	4.27	4.72	4.13	4.66	4.58	3.95	4.01	3.98	3.88	3.61	3.76
D./H.I.	5.19	4.53	4.55	4.52	3.97	4.51	4.55	3.94	4.21	4.08	4.21	3.85	4.03
L.D.	4.80	4.32	4.18	4.29	3.42	4.23	4.20	4.05	3.97	4.01	4.13	3.28	3.71
B.D.	4.57	4.04	4.10	3.70	2.31	3.25	3.67	3.88	4.50	4.19	5.38	3.56	4.47
P.Hc.	5.03	4.28	3.74	4.46	3.94	4.38	4.31	3.87	3.56	3.72	3.84	3.52	3.68
M.Hc.	4.73	4.13	3.46	4.27	3.91	4.17	4.11	4.02	3.54	3.79	3.54	3.04	3.30
L.P.	4.83	4.29	4.20	4.10	3.58	4.11	4.19	3.94	3.87	3.90	4.03	3.37	3.51
I.G.	5.96	5.01	5.06	5.05	3.76	5.01	4.97	3.83	4.59	4.21	5.06	5.56	5.31

*See page 39 for explanations of abbreviations.

TABLE 11. Mean Evaluation, Potency, and Activity Relationship Scores of Teachers, Who Had Not Taught Exceptional Students by Individual Polar Adjectives, and Exceptionalities

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
M.R.*	4.64	4.08	3.40	4.17	3.25	4.03	3.93	3.51	4.00	3.76	3.69	2.25	2.97
L./SD.	4.75	4.56	4.42	4.14	3.86	4.11	4.31	3.92	3.97	3.94	4.11	3.61	3.86
B./V.L.	4.44	4.26	4.11	4.60	4.29	4.31	4.33	4.09	3.63	3.86	3.51	3.40	3.46
D./H.I.	4.82	4.41	4.44	4.53	4.06	4.35	4.41	3.85	4.21	4.03	4.03	3.68	3.85
L.D.	4.57	4.03	4.03	4.17	3.58	4.09	4.05	3.85	3.66	3.74	4.23	3.23	3.73
B.D.	4.20	3.91	3.94	3.49	2.23	3.46	3.54	4.00	4.40	4.20	5.51	3.34	4.43
P.Hc.	4.42	3.86	3.39	4.31	3.72	4.06	3.96	3.44	3.17	3.31	3.61	3.36	3.49
M.Hc.	4.06	3.60	2.97	4.06	3.37	3.71	3.63	3.80	3.20	3.50	3.17	2.74	2.96
L.P.	4.63	4.29	4.11	3.91	3.51	4.34	4.31	3.89	4.09	3.96	4.26	3.51	3.75
I.G.	6.22	5.47	5.31	5.44	3.97	5.44	4.13	3.86	5.17	3.99	5.66	5.92	3.68

*See page 39 for explanations of abbreviations.

attitudes toward six exceptionalities--language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, learning problems, and intellectually gifted. They had negative attitudes toward behavioral disordered.

Having taught handicapped students does minimally influence teacher attitudes toward exceptional students. Teachers who had taught exceptional students indicated the most positive attitudes toward intellectually gifted and the most negative attitudes toward behavioral disordered. Teachers who had not taught exceptional students were the most positive toward blind and visually limited and the most negative toward behavioral disordered.

The potency ratings of teachers who had and had not taught exceptional students indicated that teachers who had taught exceptional students were the most positive toward exceptional students' capacity for development, and teachers who had not taught exceptional students were the most negative.

The activity ratings of teachers who had and had not taught exceptional students indicated that teachers who had taught exceptional students were the most positive toward their power of mind and body, and teachers who had not taught exceptional students were the most negative.

7. Does the type of handicapping condition of the students taught affect teachers' attitudes?

The type of handicapping condition of the students may or may not affect teachers' attitudes. Tables 12 through 21 are 3 x 13 correlation matrices which indicate attitudinal responses

TABLE 12. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Mentally Retarded Students by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	4.95	4.24	3.88	4.49	3.38	4.16	4.18	3.74	4.17	3.96	4.03	2.54	3.29
Had Taught	5.00	4.12	4.05	4.47	3.49	4.26	4.23	3.63	4.41	4.03	4.27	2.47	3.38
Had Not Taught	4.91	4.30	3.79	4.49	3.32	4.11	4.16	3.79	4.05	3.93	3.90	2.57	3.25

TABLE 13. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Language and Speech Disordered Students by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	5.04	4.48	4.56	4.39	3.78	4.32	4.43	3.93	3.92	3.93	4.15	3.53	3.84
Had Taught	5.21	4.54	4.65	4.50	3.74	4.43	4.51	3.89	4.00	3.94	4.21	3.64	3.94
Had Not Taught	4.92	4.44	4.50	4.31	3.81	4.24	4.37	3.92	3.87	3.91	4.10	3.45	3.78

TABLE 14. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Blind and Visually Limited Students by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	5.07	4.53	4.25	4.70	4.16	4.63	4.56	3.96	3.97	3.99	3.83	3.59	3.72
Had Taught	5.14	4.31	4.27	4.85	4.12	4.74	4.58	4.03	3.85	3.94	3.70	3.59	3.67
Had Not Taught	5.05	4.60	4.25	4.65	4.17	4.59	4.55	3.94	4.01	3.98	3.88	3.58	3.73

TABLE 15. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Deaf and Hearing Impaired Students by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable Worthless	Clean Dirty	Healthy Sickly	Good Bad	Calm Excited	Pleasant Unpleasant	Means	Small Large	Strong Weak	Means	Active Passive	Fast Slow	Means
All Teachers	5.15	4.51	4.53	4.52	4.09	4.49	4.53	3.93	4.21	4.08	4.19	3.83	4.01
Had Taught	5.44	4.63	4.66	4.58	4.17	4.70	4.70	3.88	4.27	4.09	4.17	3.94	4.08
Had Not Taught	5.07	4.48	4.49	4.50	3.92	4.43	4.48	3.95	4.19	4.07	4.20	3.79	3.99

TABLE 16. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Learning Disabled Students by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	4.77	4.29	4.17	4.28	3.41	4.21	4.19	4.03	3.93	3.98	4.14	3.29	3.72
Had Taught	4.78	4.33	4.23	4.32	3.47	4.32	4.24	4.03	4.02	4.03	4.18	3.30	3.75
Had Not Taught	4.73	4.23	4.07	4.20	3.32	4.04	4.10	4.03	3.78	3.90	4.09	3.26	3.67

TABLE 17. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Behavioral Disordered Students by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	4.52	4.02	4.08	3.68	2.30	3.27	3.65	3.90	4.48	4.19	5.39	3.54	4.47
Had Taught	4.79	4.08	4.13	3.63	2.34	3.25	3.71	3.85	4.52	4.18	5.40	3.63	4.51
Had Not Taught	3.31	3.98	4.04	3.72	2.27	3.28	3.60	3.93	4.46	4.19	5.39	3.47	4.44

TABLE 18. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Physically Handicapped Students by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	4.96	4.23	3.70	4.44	3.92	4.35	4.27	3.82	3.52	3.67	3.82	3.50	3.66
Had Taught	5.13	4.33	3.80	4.56	4.05	4.43	4.38	3.90	3.77	3.84	3.93	3.58	3.75
Had Not Taught	4.86	4.17	3.64	4.37	3.85	4.30	4.20	3.78	3.36	3.57	3.76	3.46	3.61

TABLE 19. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Multiple Handicapped Students by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	4.65	4.07	3.33	4.25	3.85	4.12	4.05	4.00	3.50	3.75	3.50	3.01	3.26
Had Taught	5.28	4.26	3.58	4.51	3.95	4.45	4.34	3.97	3.82	3.90	3.92	2.97	3.45
Had Not Taught	4.56	4.04	3.29	4.21	3.83	4.07	4.01	4.00	3.45	3.73	3.43	3.01	3.23

TABLE 20. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Students with Learning Problems by Individual Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	4.81	4.29	4.19	4.08	3.58	4.13	4.18	3.93	3.88	3.91	4.05	3.39	3.53
Had Taught	4.93	4.33	4.24	4.19	3.56	4.16	4.24	3.91	3.89	3.90	4.01	3.41	3.53
Had Not Taught	4.59	4.21	4.08	3.86	3.60	4.09	4.07	3.97	3.87	3.92	4.14	3.35	3.54

TABLE 21. Mean Evaluation, Potency, and Activity Relationship Scores of All Teachers, Teachers Who Had and Had Not Taught Intellectually Gifted Students by Polar Adjectives

	Evaluation							Potency			Activity		
	Valuable / Worthless	Clean / Dirty	Healthy / Sickly	Good / Bad	Calm / Excited	Pleasant / Unpleasant	Means	Small / Large	Strong / Weak	Means	Active / Passive	Fast / Slow	Means
All Teachers	5.99	5.06	5.09	5.09	3.78	5.06	5.01	3.84	4.65	4.24	5.13	5.60	5.36
Had Taught	6.06	5.24	5.17	5.27	3.73	5.08	5.09	3.73	4.73	4.22	5.28	5.63	5.46
Had Not Taught	5.91	4.88	4.99	4.91	3.82	5.04	4.92	3.95	4.57	4.26	4.97	5.56	5.27

toward individual exceptionalities. Each exceptionality on the matrix is further divided to show attitudes of all teachers and those of teachers who had and had not taught that individual descriptor.

All teachers shared neutral attitudes toward eight exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically handicapped, multiple handicapped, and learning problems--and slightly negative attitudes toward behavioral disordered. The only deviation from this unanimity was that teachers who had taught exceptional students indicated slightly positive attitudes toward intellectually gifted, and teachers who had not taught exceptional students were neutral toward this descriptor.

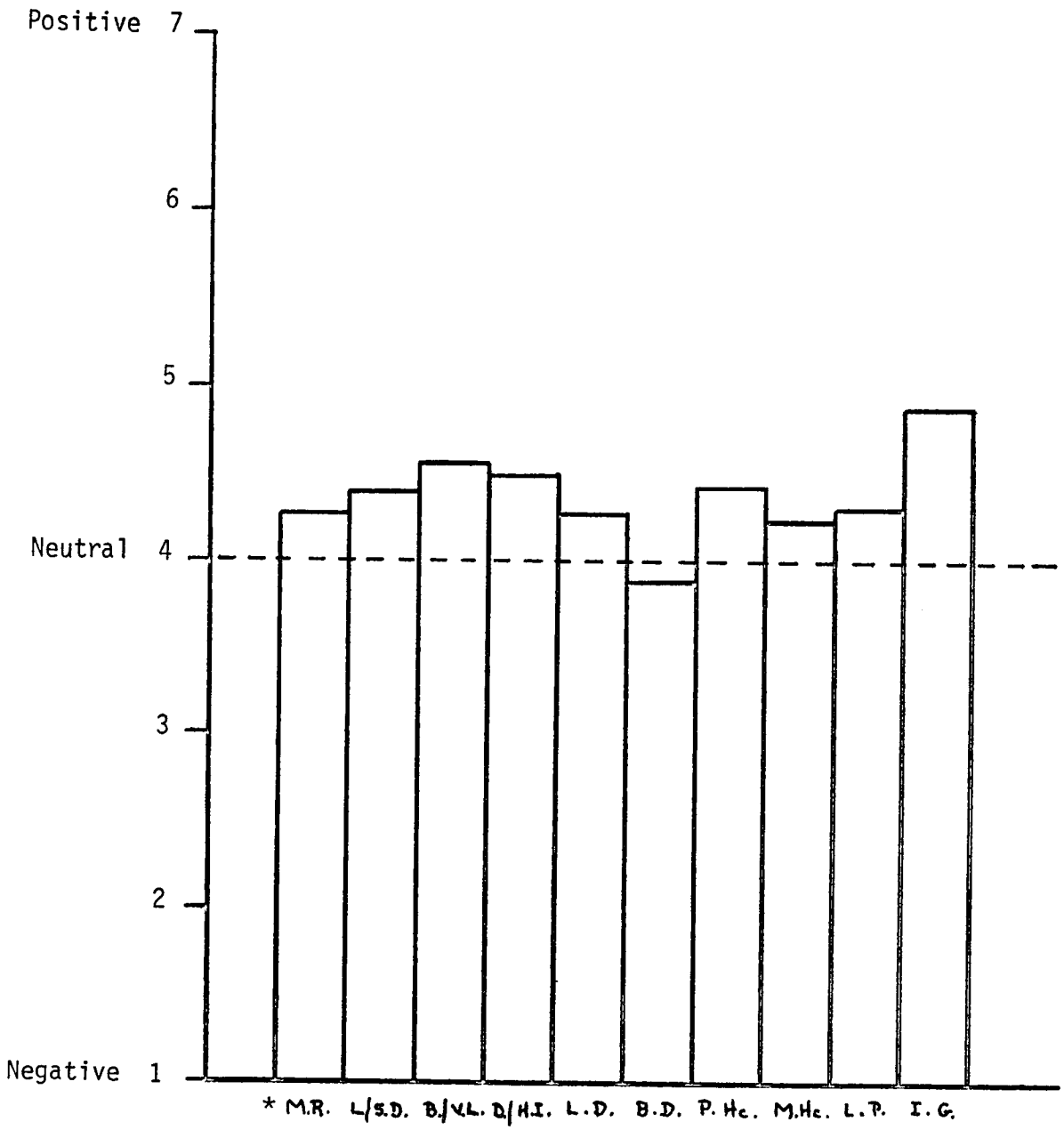
Both teachers who had and had not taught exceptional students indicated the most positive attitudes--toward intellectually gifted and the most negative attitudes--toward behavioral disordered.

The potency ratings indicated variations in teacher attitudes. Teachers who had taught exceptional students who were mentally retarded, language and speech disordered, deaf and hearing impaired, learning disabled, physically handicapped, or multiple handicapped were more positive toward these six exceptionalities than were teachers who had not taught these students. Teachers who had taught exceptional students who were blind and visually limited, behavioral disordered, had learning problems, or intellectually gifted were more negative toward these four exceptionalities than were teachers who had not taught these students.

The activity ratings indicated variations in teacher attitudes. Teachers who had taught exceptional students who were mentally retarded, language and speech disordered, deaf and hearing impaired, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, or intellectually gifted were more positive toward these eight exceptionalities than were teachers who had not taught these students. Teachers who had taught exceptional students who were blind and visually limited or had learning problems were more negative toward these two exceptionalities than were teachers who had not taught these students. Figure I shows the attitudinal differences among the exceptionalities as indicated by teachers who had taught exceptional students. Figure II shows the attitudinal differences among the exceptionalities as indicated by teachers who had not taught exceptional students.

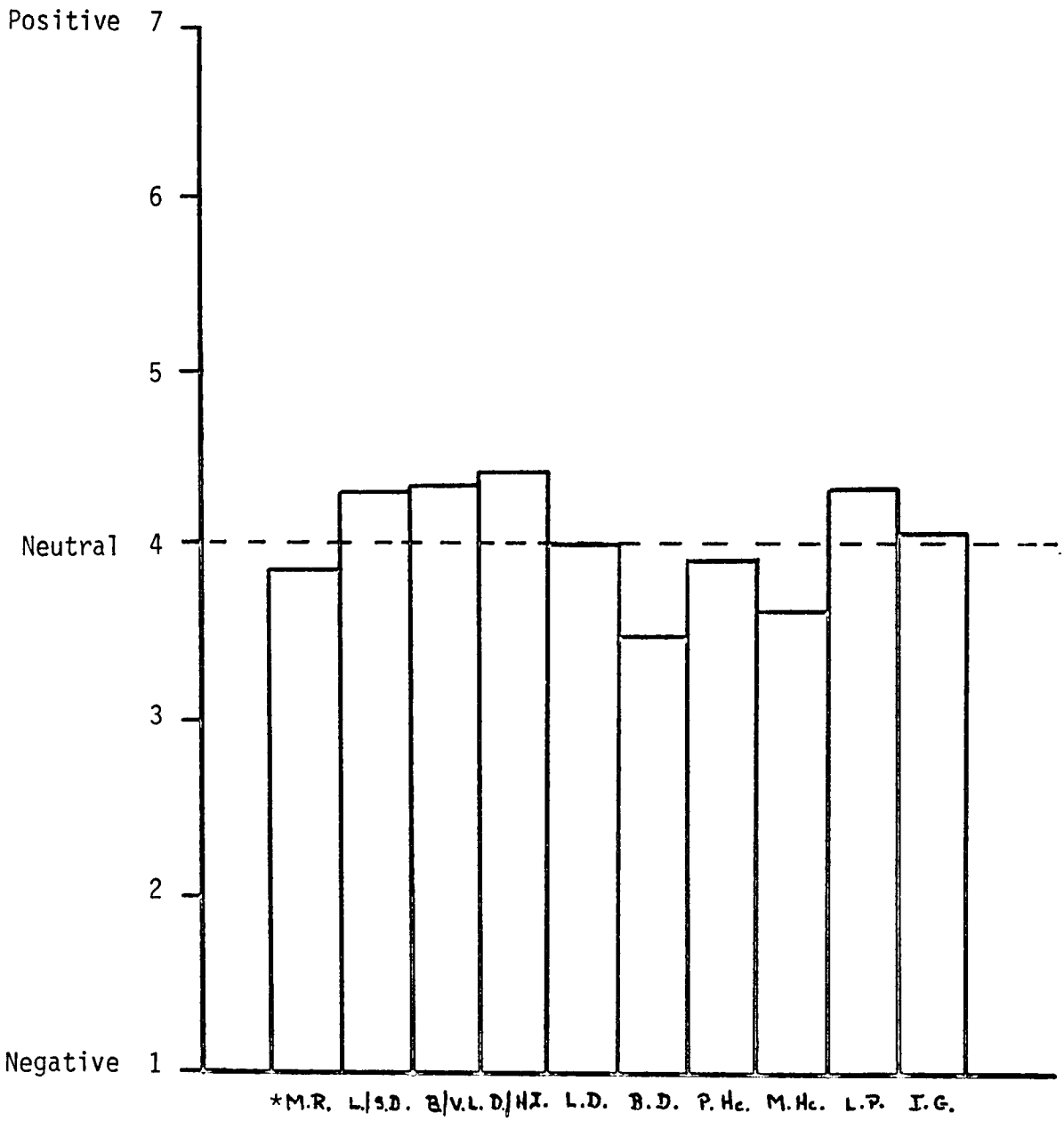
8. Do regular classroom teachers have positive or negative attitudes toward exceptional students?

Data collected suggest that, in general, teachers approached unanimity with neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning problems, physically handicapped, multiple handicapped, and learning problems and slightly negative attitudes toward behavioral disordered. The two exceptions to this unanimity were that teachers who had taught exceptional students were slightly positive toward intellectually gifted, while teachers who had not taught exceptional students were neutral toward this exceptionality.



*See page 39 for explanations of abbreviations.

FIGURE I. Attitudinal Differences Among the Exceptionalities As Indicated by Teachers Who Had Taught Exceptional Students



*See page 39 for explanations of abbreviations.

FIGURE II. Attitudinal Differences Among the Exceptionalities As Indicated by Teachers Who Had Not Taught Exceptional Students

When viewed within specific frames of reference, teachers indicated definite negative attitudes toward exceptional students. Age influences teacher attitudes. Teachers in the 30 years and younger group who had not taught exceptional students indicated slightly negative attitudes toward six exceptionalities--mentally retarded, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, and learning problems. Of the four age groups of teachers who had and had not taught exceptional students, those who were 30 years or younger had the most negative attitudes toward exceptional students. Next in negativism were teachers who were 31 to 40 years old and then those who were 51 years or older. The least negative were teachers who were 41 to 50 years of age.

Educational degree earned affects teacher attitudes toward exceptional students. Teachers with bachelor's degrees who had not taught exceptional students indicated slightly negative attitudes toward five exceptionalities--mentally retarded, learning disabled, behavioral disordered, physically handicapped, and multiple handicapped--more than any other educational level group. These teachers were the most negative, followed by teachers with master's degrees who had not taught exceptional students. Teachers with specialist's degrees were the least negative.

Experience does influence teacher attitudes toward exceptional students. Teachers with one to three years of experience who had not taught exceptional students indicated negative attitudes toward

seven exceptionalities--mentally retarded, language and speech disordered, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, and learning problems--more than teachers in any other category of experience. These teachers were the most negative, followed by teachers with 10 to 20 years of experience. Teachers with 4 to 9 years of experience were next, followed by those with more than 20 years of experience.

Academic courses in special education affect teacher attitudes toward exceptional students. The fewer the courses the teachers had taken, the more negative the attitudes indicated.

The sex of teachers does have an influence on teacher attitudes toward exceptional students. Female teachers who had taught exceptional students indicated more negative attitudes than did their male counterparts. Male teachers who had not taught exceptional students were more negative than were female teachers who had not taught them.

Having a handicapped family member does affect teacher attitudes toward exceptional students. Teachers without a handicapped family member were more negative toward exceptional students than teachers who had a handicapped family member.

Teachers' subject areas do influence teacher attitudes toward exceptional students. Teachers who taught foreign language, music, art, vocational technology, physical education, and health indicated more negative attitudes than teachers who taught English, science, social studies, math, psychology, special education, and other.

The type of handicapping condition affects teacher attitudes toward exceptional students. Teacher attitudes toward behavioral

disordered were more negative than were attitudes toward any other exceptionalities and more positive toward intellectually gifted than toward any other exceptionalities.

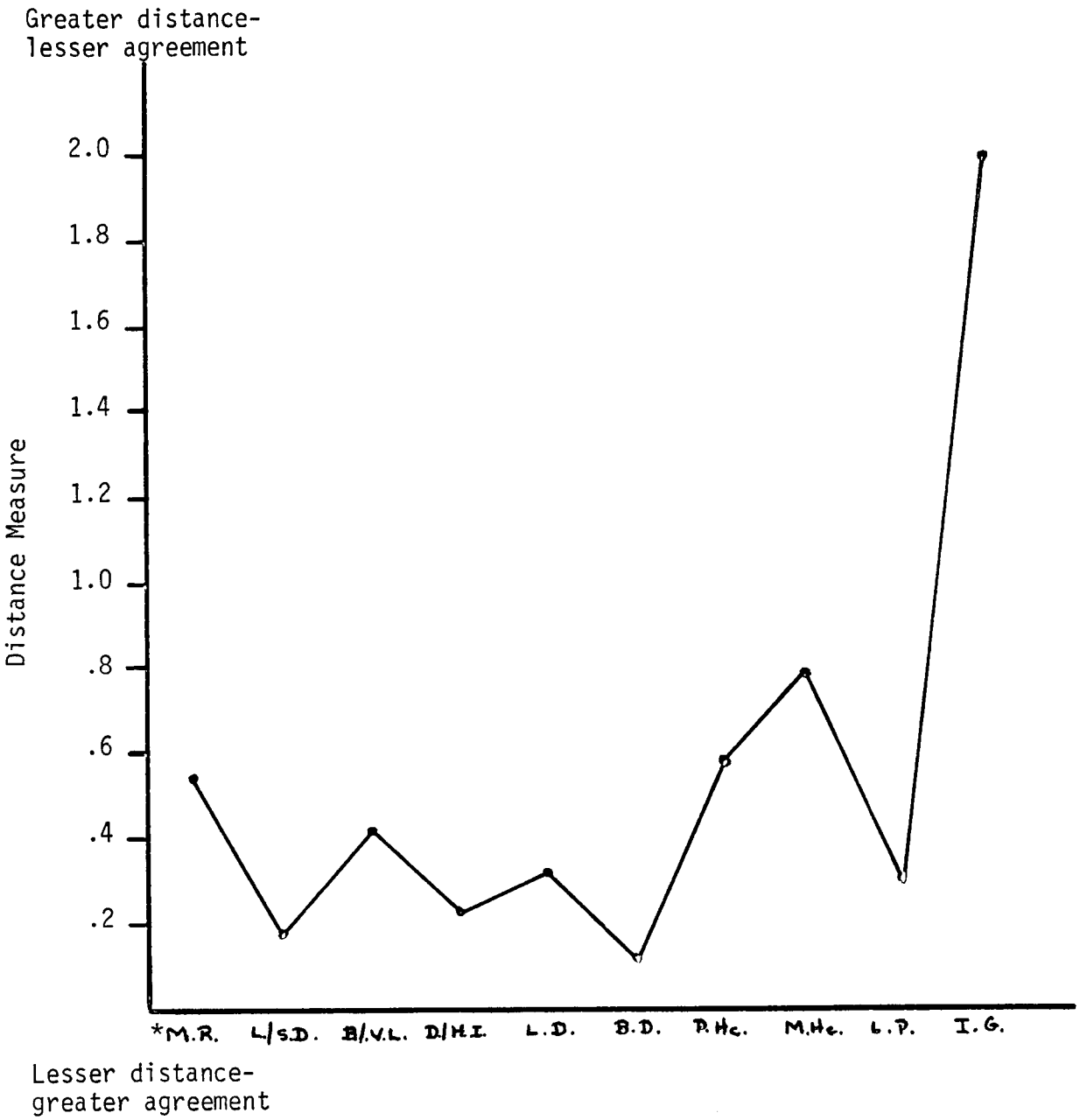
Having taught handicapped students influences teacher attitudes toward exceptional students. Teachers who had not taught exceptional students evinced more negative attitudes than did teachers who had taught exceptional students.

Figure III shows the distances between the attitudes of teachers who had taught exceptional students and those who had not taught exceptional students toward the 10 exceptionalities. The smaller the number, the lesser the distance between attitudes. The larger the number, the greater the distance between attitudes.

III. INFLUENCE OF TEACHER-RELATED PROBLEMS THAT AFFECT TEACHER ATTITUDES

Possible teacher-related problems stem from teacher attitudes toward interaction with exceptional students. Respondents indicated on a continuum their attitudes about various aspects of teaching exceptional students, including their training, feeling sorry for and communication with handicapped students, and being comfortable with these students. Other aspects considered were awareness of restrictions placed on handicapped students, appeal of teaching these students, and ability to help them learn.

Bar graphs were developed to address teacher attitudes as influenced by possible teacher-related problems. Bar A represents the "strongly agree" response, bar D represents the "neutral" response, and bar G represents the "strongly disagree" response.



*See page 39 for explanations of abbreviations.

FIGURE III. Distance Between Attitudes of Teachers Who Had and Had Not Taught Specific Categories of Exceptional Students

The teachers responded to the following statements.

I have the necessary training to teach handicapped students.

Teachers' responses about their training are indicated in Figure IV. Only 12.8 percent (sum of bars A, B, and C) agreed that they had the necessary training. Fifty-two percent (bar G) strongly disagreed about the training necessary to teach handicapped students, and 78.1 percent (sum of bars E, F, and G) disagreed about their having training necessary to teach handicapped students.

I feel sorry for handicapped students.

Teachers' responses about whether they felt sorry for handicapped students are indicated in Figure V. As seen in this figure, 47.7 percent (sum of bars A, B, and C) of the teachers agreed that they felt sorry for handicapped students. And 24.9 percent (bar D) were neutral with 27.4 percent (sum of bars E, F, and G) disagreeing about feeling sorry for handicapped students.

I can communicate effectively with handicapped students.

Teachers' responses about their ability to communicate effectively are indicated in Figure VI. Forty-three percent (sum of bars A, B, and C) agreed that they could communicate effectively with handicapped students, and 29.7 percent (sum of bars E, F, and G) disagreed with having the ability to communicate with handicapped students.

I am comfortable with handicapped students.

Teachers' responses about whether they felt comfortable with handicapped students are indicated in Figure VII. The sum of bars A, B, and C show that 48.1 percent agreed with their having the capacity to feel comfortable with handicapped students, and 30.9 percent (sum of bars E, F, and G) disagreed with their having this capacity.

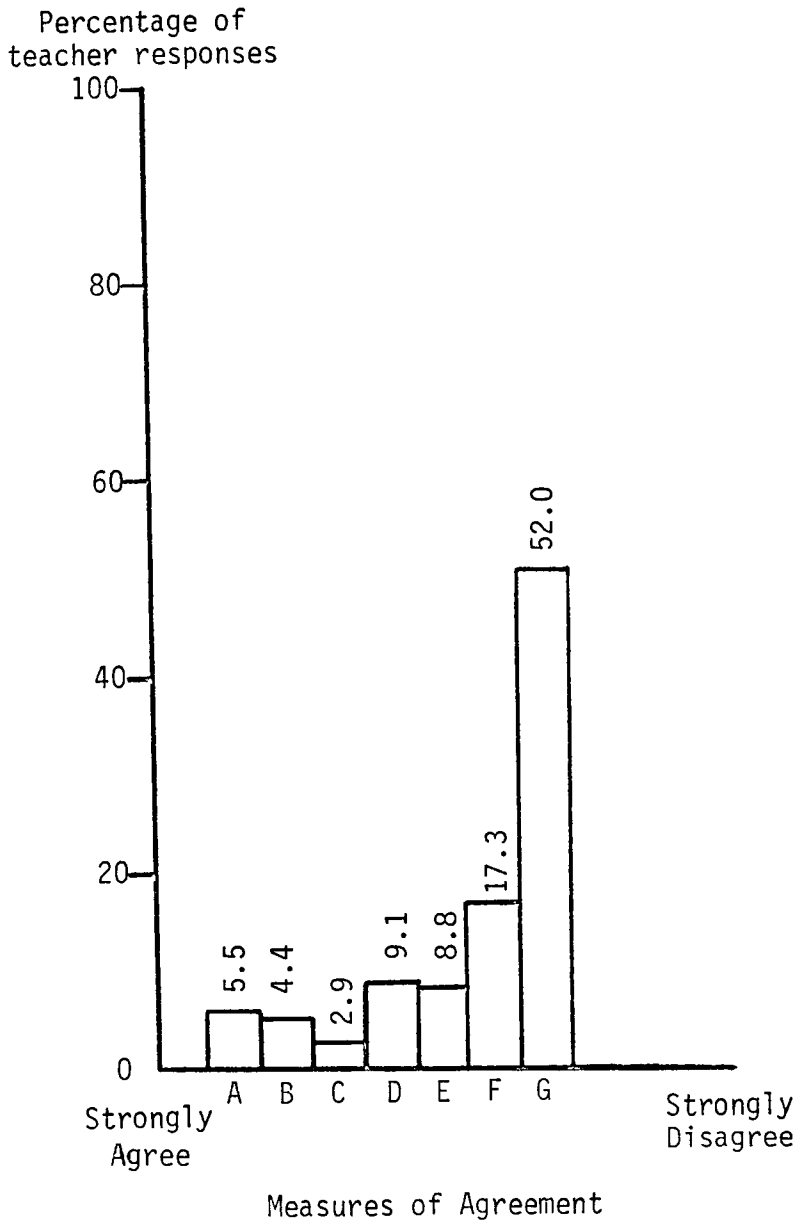


FIGURE IV. The Percentages of Teacher Responses on a Measure of Agreement for the Variable "I have the necessary training to teach handicapped students."

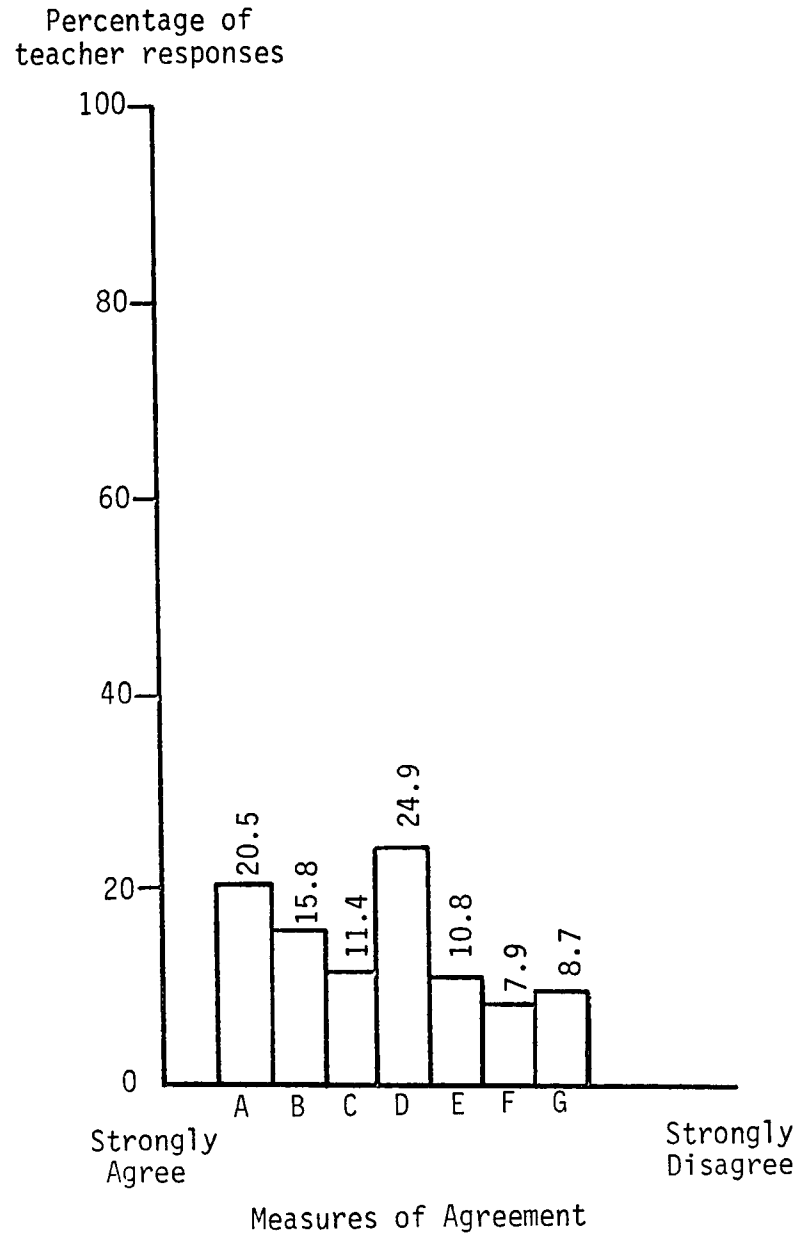


FIGURE V. Percentage of Teacher Responses on a Measure of Agreement for the Variable "I feel sorry for handicapped students."

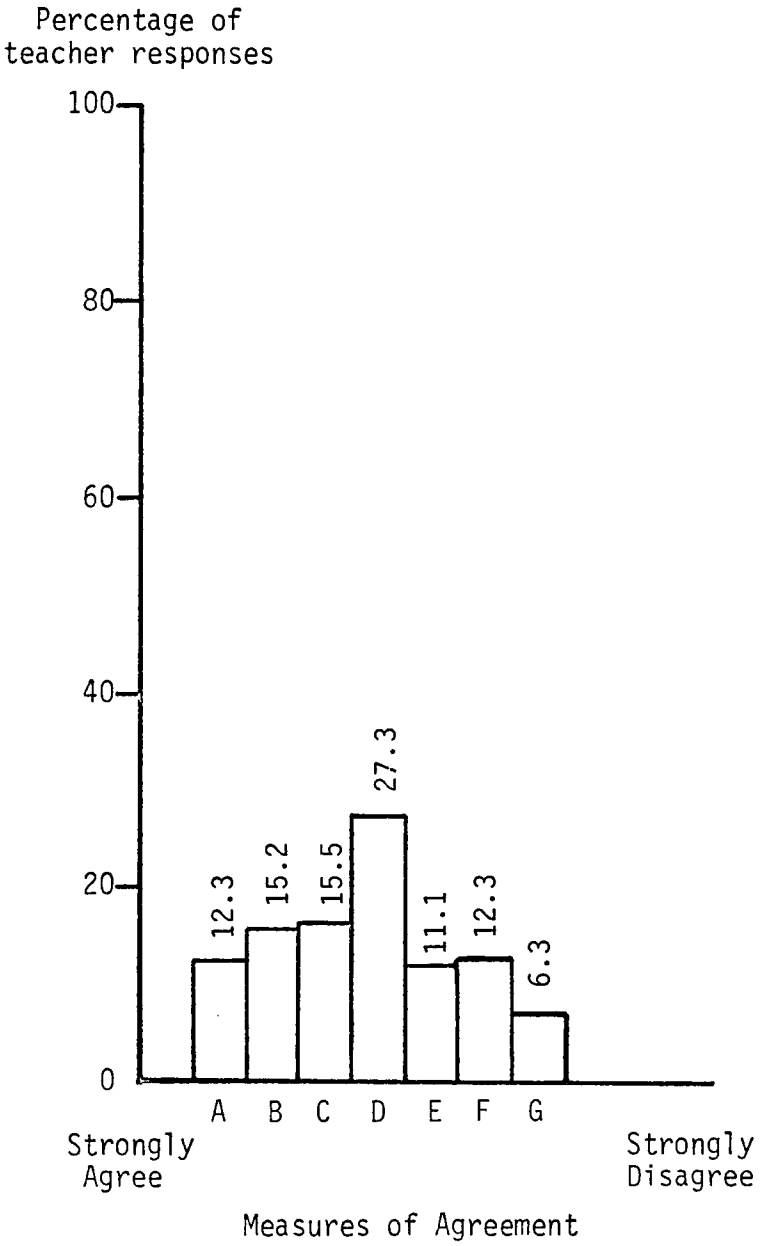


FIGURE VI. The Percentages of Teacher Responses on a Measure of Agreement for the Variable "I can communicate effectively with handicapped students."

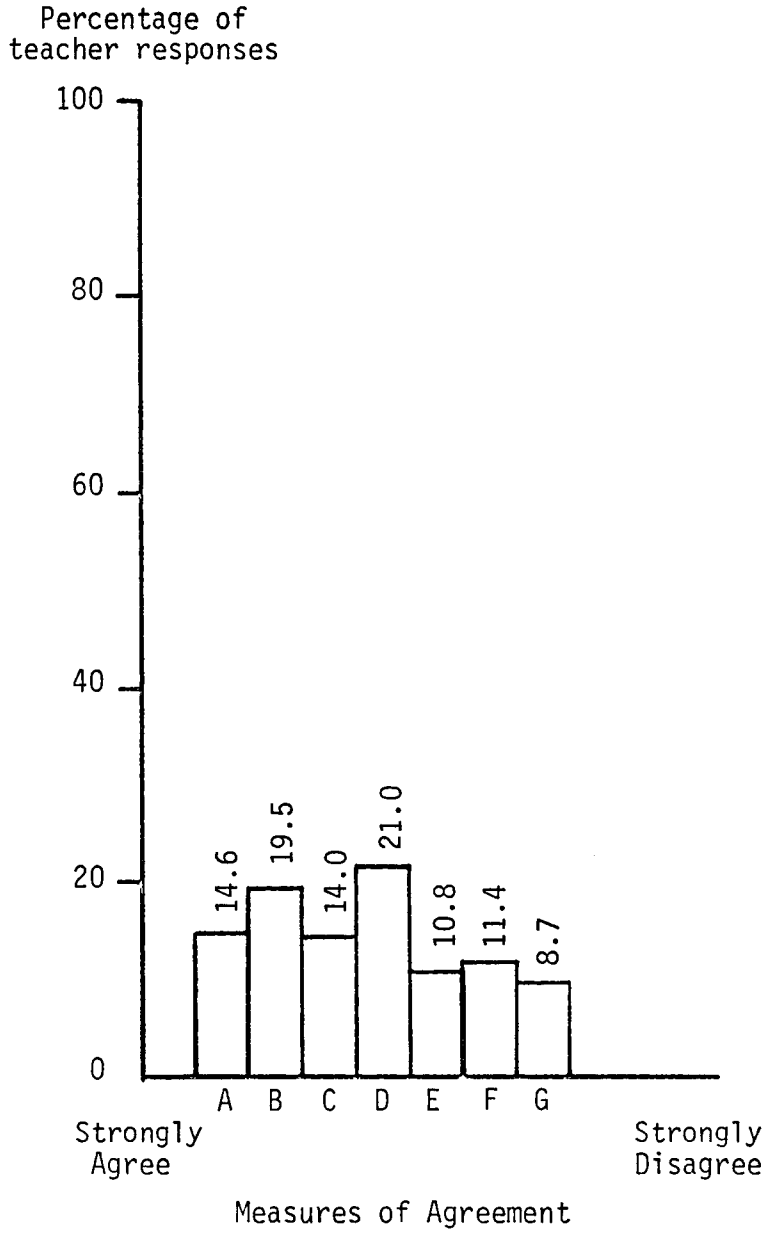


FIGURE VII. The Percentages of Teacher Responses on a Measure of Agreement for the Variable "I am comfortable with handicapped students."

I am aware of the restrictions placed on students by various handicapping conditions.

Teachers' responses about their awareness of restrictions placed on students by various handicapping conditions are indicated in Figure VIII. Agreeing with their having an awareness of restrictions were 70.8 percent (sum of bars A, B, and C) of the respondents. Only 18 percent (sum of bars E, F, and G) of the teachers were in disagreement about their awareness of restrictions placed on students by various handicapping conditions.

The idea of teaching handicapped students appeals to me.

Teachers' responses about the appeal of the idea of teaching handicapped students are indicated in Figure IX. Agreeing with the idea of teaching handicapped students were 23.4 percent (sum of bars A, B, and C). More than twice as many teachers, 57.6 percent (sum of bars E, F, and G), disagreed with the idea of teaching handicapped students.

I can help handicapped students learn.

Teachers' responses about their capability to help handicapped students learn are indicated in Figure X. Forty-eight percent (sum of bars A, B, and C) of the teachers agreed with their having the capability to help handicapped students learn, and 32.4 percent (sum of bars E, F, and G) disagreed with their having the capability to help handicapped students learn.

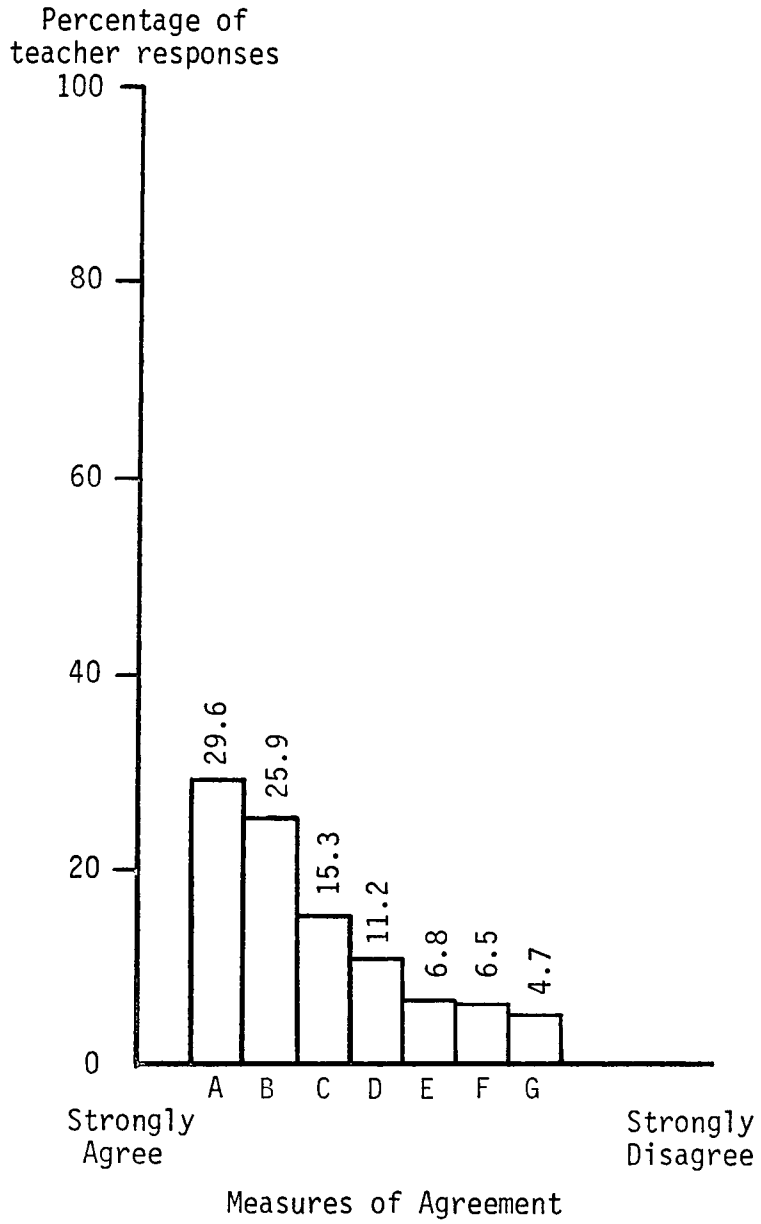


FIGURE VIII. The Percentages of Teacher Responses on a Measure of Agreement for the Variable "I am aware of the restrictions placed on students by various handicapping conditions."

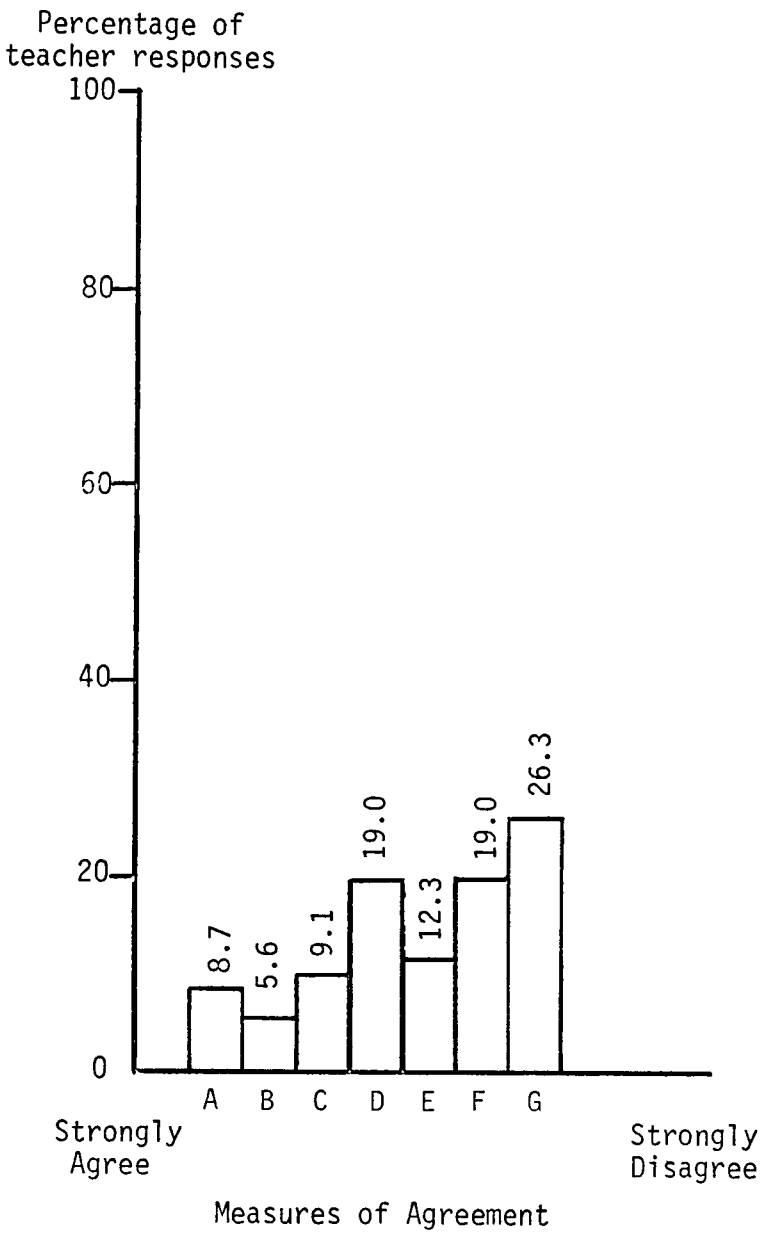


FIGURE IX. The Percentages of Teacher Responses on a Measure of Agreement for the Variable "The idea of teaching handicapped students appeals to me."

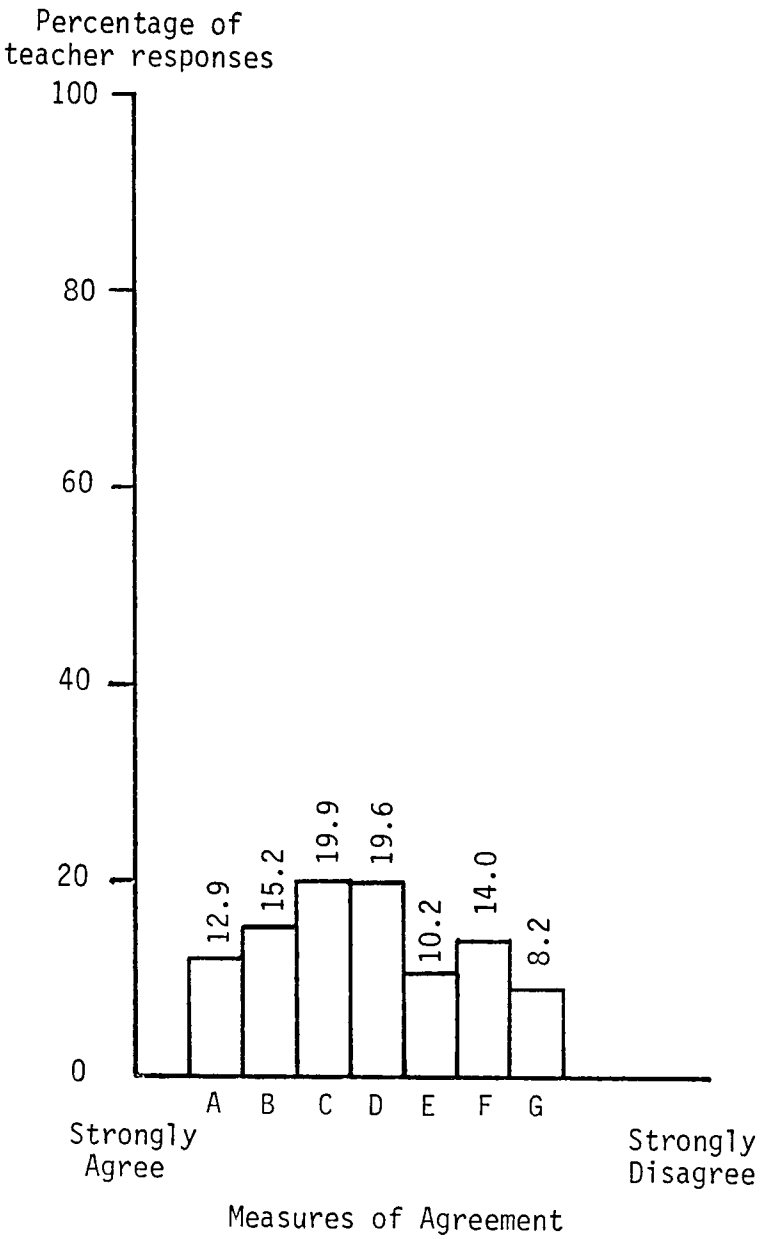


FIGURE X. The Percentages of Teacher Responses on a Measure of Agreement for the Variable "I can help handicapped students learn."

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

This study ascertained teacher attitudes toward handicapped students which might facilitate or inhibit the quality of education they receive. In the spring of 1980, teachers in 36 secondary schools in Tennessee Congressional Districts 1, 2, and 3 were asked to indicate their attitudes toward handicapped students. This information encompassed attitudinal indicators such as preparation, sympathy, communication, sense of ease, awareness of restrictions imposed by various handicapping conditions, appeal of teaching handicapped students, and ability to help them learn. The teachers also indicated their attitudes toward specific handicapping conditions--mentally retarded, language and speech disabled, blind and visually limited, deaf and hearing impaired, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, learning problems, and intellectually gifted. Demographic data from the respondents were used to ascertain whether having taught handicapped students, having access to supportive services, and teaching in specific subject areas would affect teacher attitudes toward exceptional students. Also collected were data related to age, degree earned, experience, courses in special education, sex, and absence or presence of a handicapped family member.

Of the 36 schools asked to participate, 27 agreed to do so, and 25 actually responded. The total teacher population of these 25 schools

was 761, and of that number, there was a return rate of 371, 49 percent. The 347 usable responses constituted 46 percent of the teacher population of the 25 responding schools.

The primary data gathering instrument of the study was a questionnaire developed by the writer, using the Osgood Semantic Differential. This technique used polar adjectives to measure attitudes through semantic space. A seven-point scale enabled the researcher to evaluate the expressed attitudes of individuals on selected concepts. The polar adjectives were divided into subgroups of evaluative, potency, and activity.

II. FINDINGS

The data yielded information about teacher attitudes toward exceptional students relative to the demographic data, teacher/exceptional student interaction, and specific exceptionalities. Neutral attitudes toward exceptional students, except for behavioral disordered and intellectually gifted, were indicated by the study respondents. Teachers who had taught exceptional students were consistently more positive than were teachers who had not taught exceptional students. Both teachers who had and had not taught exceptional students indicated negative attitudes toward behavioral disordered. Teachers who had and had not taught exceptional students had slightly positive attitudes toward intellectually gifted.

1. Are teacher attitudes affected by age, educational degree level, experience, preparation, or sex?

Age is related to teacher attitudes. Teachers in the 30 years and younger group who had not taught exceptional students indicated slightly negative attitudes toward six exceptionalities--mentally retarded, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, and learning problems. Of the four age groups of teachers who had and had not taught exceptional students, those who were 30 years or younger had the most negative attitudes toward exceptional students. Next in negativism were teachers who were 31 to 40 years old and then those who were 51 years or older. The least negative were teachers who were 41 to 50 years of age.

Educational degree earned is related to teacher attitudes toward exceptional students. Teachers with bachelor's degrees who had not taught exceptional students indicated slightly negative attitudes toward five exceptionalities--mentally retarded, learning disabled, behavioral disordered, physically handicapped, and multiple handicapped--more than any other educational level group. These teachers were the most negative, followed by teachers with master's degrees who had not taught exceptional students. Teachers with specialist's degrees were the least negative.

Experience does relate to teacher attitudes toward exceptional students. Teachers with one to three years of experience who had not taught exceptional students indicated negative attitudes toward seven exceptionalities--mentally retarded, language and speech disordered, learning disabled, behavioral disordered, physically handicapped, multiple handicapped, and learning problems--more than teachers in any

other category of experience. These teachers were the most negative, followed by teachers with 10 to 20 years of experience. Teachers with 4 to 9 years of experience were next, followed by those with more than 20 years of experience.

Academic courses in special education relate to teacher attitudes toward exceptional students. The fewer the courses the teachers had taken, the more negative the attitudes indicated.

The sex of teachers is also associated with teacher attitudes toward exceptional students. Female teachers who had taught exceptional students indicated more negative attitudes than did their male counterparts. Of the teachers who had not taught exceptional students, male teachers were more negative than were female teachers.

2. Does having a handicapped family member influence teachers' attitudes?

Having a handicapped family member does relate to teacher attitudes toward exceptional students. Teachers without a handicapped family member were more negative toward exceptional students than teachers who had a handicapped family member.

3. Does the absence or presence of supportive services possessed by the school system affect the teachers' attitudes?

The absence or presence of supportive services is not a valid indicator for teacher attitudes because of the inconsistencies of the responses. However, the responses did show that 22.9 percent of the teachers viewed their schools as having resource teachers, 21.7 percent as having resource materials, and 18.8 percent as having psychological services. The percentages of teachers viewing their schools as having

other supportive services were considerably less. Only .9 percent indicated that their schools had no supportive services.

4. Do the teachers' subject areas influence their attitudes?

Teachers' subject areas do relate to teacher attitudes toward exceptional students. Teachers who taught foreign language, music, art, vocational technology, physical education, and health indicated more negative attitudes than teachers who taught English, science, social studies, math, psychology, special education, and other.

5. Does the type of handicapping condition affect the teachers' attitudes?

The type of handicapping condition relates to teacher attitudes toward exceptional students. Teacher attitudes toward behavioral disordered were more negative than were attitudes toward any other exceptionalities and more positive toward intellectually gifted than toward any other exceptionalities.

6. Does having taught handicapped students influence teacher attitudes?

Having taught handicapped students relates to teacher attitudes toward exceptional students. Teachers who had not taught exceptional students evinced more negative attitudes than did teachers who had taught exceptional students.

7. Does the type of handicapping condition of the students taught affect teachers' attitudes?

Teachers shared neutral attitudes toward eight exceptionalities--mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning disabled, physically

handicapped, multiple handicapped, and learning problems--and slightly negative attitudes toward behavioral disordered. The only deviation from this unanimity was that teachers who had taught exceptional students indicated slightly positive attitudes toward intellectually gifted.

8. Do regular classroom teachers have positive or negative attitudes toward exceptional students?

Data collected suggest that teachers approached unanimity with neutral attitudes toward mentally retarded, language and speech disordered, blind and visually limited, deaf and hearing impaired, learning problems, physically handicapped, multiple handicapped, and learning problems and held slightly negative attitudes toward behavioral disordered. The two exceptions to this unanimity was that teachers who had taught exceptional students were slightly positive toward intellectually gifted, while teachers who had not taught exceptional students were neutral toward this exceptionality.

III. CONCLUSIONS

1. Negative attitudes toward exceptional students are most associated with youth and inexperience, and positive attitudes with age and experience. These negative attitudes could be caused by feelings of inadequacy, while the positive attitudes may stem from a sense of professional dedication to teaching all students. This conclusion is supported by Foster, Ysseldyke, and Reese who show that even limited experience produces attitudes that are less negative than initially.[85]

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[85]Foster, Ysseldyke, and Reese, "I Wouldn't Have Seen It If I Hadn't Believed It," p. 469.

2. Seventy-eight percent of the teachers indicated inadequate training to teach handicapped students. Teachers who had taken no academic courses in special education were more negative than those who had taken several courses. Teachers with bachelor's degrees had more negative attitudes toward exceptional students than teachers with master's or specialist's degrees. These negative attitudes may be caused by insecurity engendered by a lack of adequate training to teach handicapped students. Teachers' earning higher educational degrees and taking special education courses should yield more positive attitudes. This conclusion is supported by Barker,[86] Proctor,[87] and Higgs[88] whose studies indicated that attitudes become more positive as information levels increase.

3. Female teachers who had taught exceptional students indicated more negative attitudes than their male counterparts. Yet, male teachers who had not taught exceptional students were more negative toward the exceptionalities than were their female counterparts. It would seem that after exposure to a situation, male teachers are more positive than female teachers. Male teachers might be less deterred by disciplinary problems which could arise with exceptional students.

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[86]Barker, "A Survey of Prospective Teachers Concerning Attitudes Toward and Information About the Acoustically Handicapped," p. 22.

[87]Proctor, "An Investigation of the Relationships Between Knowledge of Exceptional Children, Kind, and Amount of Experience, and Attitudes Toward Their Classroom Integration," p. 1721A.

[88]Higgs, "Attitude Formation--Contact or Information?" p. 497.

4. Having a handicapped family member is positively associated with teachers' favorable attitudes toward exceptional students. It would appear that frequent contact in a personal relationship makes for positive attitudes. These teachers might transfer their acceptance of a handicapped family member to exceptional students.

5. Teachers appear unaware of supportive services afforded by their school districts. This lack of awareness could further damage the quality of education for exceptional students. Creation of an awareness of support services and their subsequent utilization could yield more positive attitudes toward exceptional students. Studies by Gullotta,[89] Guerin, and Szatlocky[90] substantiate that teachers are generally more accepting of special students if they can rely on support from other personnel.

6. Teachers who taught music and art indicated negative attitudes toward exceptional students. Their attitudes might arise from being accustomed to the "perfection" of their art forms, and obvious imperfections in students might create discomfort. If these teachers could be helped to strive for improvement in individual students, rather than "perfection," their attitudes might become more positive.

7. This study revealed that mainstreaming is best served by teachers who have taught exceptional students, are 41 to 50 years of

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[89]Gullotta, "Teacher Attitudes Toward the Moderately Disturbed Child," p. 49.

[90]Guerin and Szatlocky, "Integration Programs for the Mildly Retarded," p. 179.

age, have 20 or more years of experience, have earned higher academic degree levels, have had several courses in special education, are male, have a handicapped family member, and are aware of supportive services. The greater the number of these characteristics possessed by a teacher, the more positive the attitude toward exceptional students. These conclusions are consistent with the findings of other researchers.

IV. RECOMMENDATIONS

1. The necessity for adequate preparation was brought out in several different ways in the study. The attitudes of teachers with bachelor's degrees were more negative than those of teachers with master's and specialist's degrees. More than 50 percent of the teachers felt sorry for handicapped students and rejected the idea of teaching exceptional students. Administrators should encourage teachers to take courses which would enable them to improve the quality of education for exceptional students. This encouragement could take the form of in-service sessions, cooperative efforts with qualified persons brought into the schools to assist in mainstreaming, and paying for courses at nearby colleges or universities.

2. The situation indicated by the inconsistency of responses within individual schools about supportive services must be rectified by administrators, supportive service personnel, and teachers. Teachers must know not only of the availability but also of the various functions of supportive services in their school districts.

3. Administrators should capitalize on the willingness of teachers to help handicapped students learn as expressed by almost 50 percent of the respondents.

4. In preparing for or participating in mainstreaming, administrators in individual schools and in school districts should utilize teachers who indicated the least negative attitudes: those who have more than 20 years of experience, ones who are 41 to 50 years old, and male teachers who have taught handicapped students. These teachers could help with in-service training and as "buddies" for teachers who need to develop more positive attitudes. Especially helpful in these areas would be teachers who have handicapped family members, as they evinced quite positive attitudes toward exceptional students. They might be placed as group leaders or ready-reference persons.

5. Further research in the area of teacher attitudes toward exceptional students should be conducted using multi-variables to more clearly identify the attitudes of specific teacher groups.

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APPENDICES

APPENDIX A

LETTER TO PRINCIPALS

April 28, 1980

Principal's Name
High School
Address

Dear Principal:

I am conducting a study of the attitudes of secondary classroom teachers toward the teaching of exceptional students. As a result of this study, I hope to identify certain teacher attitudes that tend to affect the education of handicapped students. Your school was one of several schools randomly selected from the East Tennessee area to participate in this study. I am, therefore, writing to you to request not only your permission but also your assistance in completing this research.

If you agree to participate, the enclosed questionnaires should be distributed by placing one in each teacher's school mail box. An envelope will accompany each questionnaire to ensure anonymity and confidentiality of the returns.

I will contact you by phone to secure your response to my request. You are free to withdraw your consent and to discontinue participation in the project at any time without prejudice.

Enclosed you will find a sample of the cover letter to the teachers and the questionnaire that is to be completed by them. If there are any questions, correspondence may be sent to the above address or I may be reached by phone at (615) 974-2321.

Thank you for your consideration of this project.

Yours truly,

Samantha J. Stone
Project Director

sjs

Enclosure

APPENDIX B

LETTER TO TEACHERS

April 28, 1980

Dear Teacher,

You have been selected to participate in a research project designed to identify some of the possible problems accompanying the teaching of exceptional students. This project has the approval of your building administrator. Your assistance in completing and returning the attached questionnaire would be greatly appreciated. However, your participation is totally voluntary and you are free to withdraw your consent and to discontinue participation in the project at any time without prejudice. If you elect not to participate, a sentence as to "why" written on the back of the questionnaire would be helpful.

All responses will remain anonymous and confidential. Please do not sign your name to this questionnaire. The numerical code will be used only for identifying the responses by schools and for general follow-up purposes.

"Informed consent" regulations require that each participant be informed of the purposes of the project and the anonymity of the responses. The return of the completed questionnaire constitutes fulfillment of these regulations.

The identity of each individual participant will be anonymous and the data collected for this study will be primarily utilized in completing dissertation research requirements at the University of Tennessee. Hopefully, it will also be used to modify training programs to better assist prospective teachers prepare for instructing handicapped students.

If there are questions, correspondence may be sent to the above address or I may be reached by phone at 615/974-2321.

Thank you for your assistance. Please fold the questionnaire and return it in the enclosed, stamped envelope.

Yours truly,

Samantha J. Stone
Project Director

APPENDIX C

TEACHER ATTITUDE - EXCEPTIONAL STUDENT QUESTIONNAIRE

Please do not put your name on this scale. All responses will remain anonymous and confidential. However, the following identifying information is requested:

Cd 1 _____
(1) (2-3)

1. I have taught students who were diagnosed as having the following handicaps:
(Check all that are applicable)

(4) _____Mentally retarded
(5) _____Language and/or speech disordered
(6) _____Blind and visually limited
(7) _____Deaf and hearing impaired
(8) _____Learning disabled
(9) _____Behavioral disordered
(10) _____Physically handicapped
(11) _____Multiple handicapped
(12) _____Learning problems
(13) _____Intellectually gifted
(14) _____None

2. My school has supportive services available in the following areas:
(Check all that are applicable)

(15) _____Resource materials
(16) _____Resource teachers
(17) _____Administrative support
(18) _____Psychological services
(19) _____Adaptive center services
(20) _____Special education supervisor
(21) _____None of these services

3. I am presently teaching in the following areas:
(Check all that are applicable)

(22) _____English
(23) _____Science
(24) _____Foreign language
(25) _____Social studies
(26) _____Voc. Tech.
(27) _____Physical education
(28) _____Music
(29) _____Psychology
(30) _____Art
(31) _____Health
(32) _____Special education
(33) _____Math
(34) _____Other

CHECK IN EACH OF THE SECTIONS BELOW:

4. My age is: (35)
30 years or younger_____
31 to 40 years_____
41 to 50 years_____
51 years or older_____

5. My highest degree earned is:(36)
Bachelor's_____
Master's_____
Specialist's_____
Doctorate_____

6. My teaching experience is: (37)
1 to 3 years_____
4 to 9 years_____
10 to 20 years_____
More than 20 years_____

7. My academic courses in special education total: (38)
0_____
1_____
2_____
3_____
4 or more_____

8. My sex is: (39)
Male_____
Female_____

9. My family has/had handicapped members: (40)
Yes_____
No_____

The purpose of this study is to identify some of the possible problems accompanying the teaching of exceptional students. You are asked to indicate the "problems" by identifying given areas which you feel might cause difficulty in your teaching exceptional students. Ideally, the results of this study will be used to indicate the further training and information necessary for the successful transition and implementation of mainstreaming.

Make each choice a separate and independent judgment. Work as rapidly as you can in completing the scales. Your first impression, or your immediate reaction to the problem, is the desired one.

POSSIBLE SOURCES OF PROBLEMS

(Teacher-related)

The following is intended to elicit your views regarding interactions with handicapped students. Please mark one designation which best describes your position concerning each of the categories indicated. If you feel your position is closely related to one end of the scale, you should place your mark in the appropriate extreme position as in the example. If you feel that your position is somewhere between the extremes, place your mark accordingly.

EXAMPLE

STRONGLY AGREE ___X___:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

10. I have the necessary training to teach handicapped students. (41)

STRONGLY AGREE _____:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

11. I feel sorry for handicapped students. (42)

STRONGLY AGREE _____:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

12. I can communicate effectively with handicapped students. (43)

STRONGLY AGREE _____:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

13. I am comfortable with handicapped students. (44)

STRONGLY AGREE _____:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

14. I am aware of the restrictions placed on students by various handicapping conditions. (45)

STRONGLY AGREE _____:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

15. The idea of teaching handicapped students appeals to me. (46)

STRONGLY AGREE _____:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

16. I can help handicapped students learn. (47)

STRONGLY AGREE _____:_____:_____:_____:_____:_____:_____ STRONGLY DISAGREE

POSSIBLE SOURCES OF PROBLEMS

(Student-related)

The purpose of this part of the study is to measure attitudes toward handicapped students by having you judge them against a series of descriptive scales. In completing this survey, please relate these descriptors to your concept of handicapped students.

If you feel that the concept is very closely related to one end of the scale, you should place the check mark as follows:

fair__X__:_____:_____:_____:_____:_____:_____unfair

or

fair_____:_____:_____:_____:_____:_____:__X__unfair

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check mark as follows:

fair_____:__X__:_____:_____:_____:_____:_____unfair

or

fair_____:_____:_____:_____:_____:__X__:_____unfair

If the concept seems only slightly related to one side as opposed to the other side (but is not really neutral), then you should check as follows:

fair_____:_____:__X__:_____:_____:_____:_____unfair

or

fair_____:_____:_____:_____:__X__:_____:_____unfair

If you consider the concept to be neutral on the scale, both sides of the scale equally associated with the concept, or if the scale is unrelated to the concept, then you should place your check mark in the middle space:

fair_____:_____:_____:__X__:_____:_____:_____unfair

IMPORTANT: Place your check mark in the middle of the spaces, not on the boundaries

This Not This

fair_____:__X__:_____:_____:_____:_____:_____unfair

MENTALLY RETARDED

valuable_____:_____:_____:_____:_____:_____:_____worthless		(48)
large_____:_____:_____:_____:_____:_____:_____small		(49)
dirty_____:_____:_____:_____:_____:_____:_____clean		(50)
healthy_____:_____:_____:_____:_____:_____:_____sickly		(51)
passive_____:_____:_____:_____:_____:_____:_____active		(52)
good_____:_____:_____:_____:_____:_____:_____bad		(53)
slow_____:_____:_____:_____:_____:_____:_____fast		(54)
calm_____:_____:_____:_____:_____:_____:_____excitable		(55)
unpleasant_____:_____:_____:_____:_____:_____:_____pleasant		(56)
strong_____:_____:_____:_____:_____:_____:_____weak		(57)

LANGUAGE AND/OR SPEECH DISORDERED

strong	weak	(58)
dirty	clean	(59)
valuable	worthless	(60)
healthy	sickly	(61)
large	small	(62)
active	passive	(63)
unpleasant	pleasant	(64)
bad	good	(65)
calm	excitable	(66)
fast	slow	(67)

BLIND AND VISUALLY LIMITED

clean	dirty	(68)
sickly	healthy	(69)
passive	active	(70)
good	bad	(71)
slow	fast	(72)
excitable	calm	(73)
pleasant	unpleasant	(74)
weak	strong	(75)
worthless	valuable	(76)
small	large	(77)

Cd 2 _____
(1) (2-3)

DEAF AND HEARING IMPAIRED

healthy	sickly	(4)
bad	good	(5)
calm	excitable	(6)
strong	weak	(7)
large	small	(8)
valuable	worthless	(9)
unpleasant	pleasant	(10)
dirty	clean	(11)
active	passive	(12)
fast	slow	(13)

LEARNING DISABLED

excitable	_____	_____	_____	_____	_____	_____	calm	(14)
weak	_____	_____	_____	_____	_____	_____	strong	(15)
small	_____	_____	_____	_____	_____	_____	large	(16)
worthless	_____	_____	_____	_____	_____	_____	valuable	(17)
pleasant	_____	_____	_____	_____	_____	_____	unpleasant	(18)
clean	_____	_____	_____	_____	_____	_____	dirty	(19)
passive	_____	_____	_____	_____	_____	_____	active	(20)
slow	_____	_____	_____	_____	_____	_____	fast	(21)
sickly	_____	_____	_____	_____	_____	_____	healthy	(22)
good	_____	_____	_____	_____	_____	_____	bad	(23)

BEHAVIORAL DISORDERED

calm	_____	_____	_____	_____	_____	_____	excitable	(24)
small	_____	_____	_____	_____	_____	_____	large	(25)
active	_____	_____	_____	_____	_____	_____	passsive	(26)
clean	_____	_____	_____	_____	_____	_____	dirty	(27)
strong	_____	_____	_____	_____	_____	_____	weak	(28)
slow	_____	_____	_____	_____	_____	_____	fast	(29)
sickly	_____	_____	_____	_____	_____	_____	healthy	(30)
pleasant	_____	_____	_____	_____	_____	_____	unpleasant	(31)
bad	_____	_____	_____	_____	_____	_____	good	(32)
valuable	_____	_____	_____	_____	_____	_____	worthless	(33)

PHYSICALLY HANDICAPPED

dirty	_____	_____	_____	_____	_____	_____	clean	(34)
weak	_____	_____	_____	_____	_____	_____	strong	(35)
good	_____	_____	_____	_____	_____	_____	bad	(36)
fast	_____	_____	_____	_____	_____	_____	slow	(37)
worthless	_____	_____	_____	_____	_____	_____	valuable	(38)
excitable	_____	_____	_____	_____	_____	_____	calm	(39)
large	_____	_____	_____	_____	_____	_____	small	(40)
unpleasant	_____	_____	_____	_____	_____	_____	pleasant	(41)
healthy	_____	_____	_____	_____	_____	_____	sickly	(42)
passive	_____	_____	_____	_____	_____	_____	active	(43)

MULTIPLE HANDICAPPED

valuable	worthless	(44)
slow	fast	(45)
pleasant	unpleasant	(46)
bad	good	(47)
small	large	(48)
clean	dirty	(49)
sickly	healthy	(50)
active	passive	(51)
calm	excitable	(52)
strong	weak	(53)

LEARNING PROBLEMS

weak	strong	(54)
large	small	(55)
worthless	valuable	(56)
unpleasant	pleasant	(57)
dirty	clean	(58)
passive	active	(59)
fast	slow	(60)
good	bad	(61)
excitable	calm	(62)
healthy	sickly	(63)

INTELLECTUALLY GIFTED

good	bad	(64)
excitable	calm	(65)
weak	strong	(66)
large	small	(67)
worthless	valuable	(68)
unpleasant	pleasant	(69)
dirty	clean	(70)
passive	active	(71)
fast	slow	(72)
healthy	sickly	(73)

VITA

Samantha J. Stone was born on December 19, 1946, in Anderson, South Carolina, and was graduated from high school in 1965. She received the Bachelor of Science degree in Home Economics Education from Lander College in 1968 and the Masters of Arts in Teaching degree in Clothing, Textiles, and Related Arts from Winthrop College in 1971.

From 1968 to 1970 she was a home service advisor for Duke Power Company in Anderson, South Carolina. From 1971 to 1977 she was employed at the Rock Hill Area Rehabilitation Center, Rock Hill, South Carolina, as Adjustment Specialist for five years and as Production Coordinator for two years. She then became Project Supervisor of the Walterboro Area Rehabilitation Center, Walterboro, South Carolina, for one and a half years.

In 1975 she attended the Orientation to Deafness Program at The University of Tennessee, Knoxville and entered the doctoral program in Educational Administration and Supervision at The University of Tennessee, Knoxville in 1978. During 1979 and 1980 she served as Co-Director of the National Workshop on Independent Living Skills for Severely Handicapped Deaf People to Enter Gainful Employment, Coordinator for the Tri-State Workshop for the Training of Sign Language Instructors, and Coordinator for the National Consortium of Programs for the Training of Sign Language Instructors Workshop.

She is a member of Phi Delta Kappa, National Rehabilitation Association, Vocational Evaluation and Work Adjustment Association,

Phi Upsilon Omicron, and Who's Who Among Students in American Universities and Colleges.