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MCGLON, EVANGIE HYTCHE

THE SUMMATED SLIDING SCALE: A TOOL FOR INCREASING
ACCURACY IN THE IDENTIFICATION OF EDUCATIONAL
ATTITUDES TOWARD MAINSTREAMING.

THE UNIVERSITY OF OKLAHOMA, PH.D., 1978

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THE UNIVERSITY OF OKLAHOMA
GRADUATE COLLEGE

THE SUMMATED SLIDING SCALE: A TOOL FOR INCREASING
ACCURACY IN THE IDENTIFICATION OF EDUCATIONAL
ATTITUDES TOWARD MAINSTREAMING

A DISSERTATION
SUBMITTED TO THE GRADUATE FACULTY
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degree of
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BY
EVANGIE H. MCGLON
NORMAN, OKLAHOMA

1978

THE SUMMATED SLIDING SCALE: A TOOL FOR INCREASING
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ATTITUDES TOWARD MAINSTREAMING

APPROVED BY

Charles K. King
Paul R. King
Donald K. King
R. D. King

DISSERTATION COMMITTEE

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Mr. and Mrs. Hayes Hytche,
who provided strength, understanding, and encouragement
by their faith in me.

ABSTRACT

The mainstreaming trend in recent years and the passage of PL-142 have made new demands on both regular and special education teachers. Emerging programs and processes have made it clear that there is a growing need for implimentation of a more ideal form of mainstreaming and coordinated cooperation between special educators and regular teachers.

The present investigation was oriented to this need. The purpose of the study was an attempt to facilitate better diagnosis of the mainstreaming problem by determining whether or not a tool could be developed to pinpoint and identify causative factors influencing negative attitude formation among public secondary school educators toward mainstreaming. The problem of the study was to develop and test the use of the summated sliding-scale technique to determine if the summated sliding scale provided more precise information for identification of specific variables influencing mainstreaming attitudes.

The sample population consisted of 309 subjects. Of these, 125 were male and 184 were female. A total of 266 subjects comprised the regular teacher group; 106 were male and 160 were female. There were 43 in the special education teacher group; 19 were male and 24 were female. The study employed a descriptive research design, using survey questionnaires to collect the necessary data for analysis. Chi-square and contingency coefficient testing were the statistical techniques employed.

The findings were statistically significant in the results obtained from a modified version of a validated test instrument, based on the summated five-point sliding scale technique, and results obtained from the administration of the original test instrument regarding mainstreaming attitudes and communication problems of special education and regular educators. A communication problem surrounding the mainstreaming issue existed between special educators, regular teachers, and their respective school systems. The majority of male and female regular class teachers stated that they were unfamiliar with most of the mainstreaming information contained in the study's questionnaire. Special class male and female teachers, on the other hand, were quite familiar with the information. The conclusion was reached that regardless of the type of scoring, the attitude toward mainstreaming would be similar.

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THE SUMMATED SLIDING SCALE: A TOOL FOR INCREASING
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CHAPTER I

INTRODUCTION

Background and Need

Nearly a decade ago the American government formally announced its commitment to the philosophy of equal education for all American public school children with the passage of Public Law 94-142. The law subsequently laid the groundwork for all public school systems to begin to assume the responsibility for providing the "least restrictive environment" for handicapped children (Christopolos, 1969; MacMillan, 1971; Roos, 1970). By passing a variety of "right to education" laws and the Education for All Handicapped Children Act in the fall of 1975, the Congress of the United States has continued to support the mainstreaming movement in American education ("Into the Mainstream," Time, 1976).

Mainstreaming can be defined as the practice of integrating all but the most severely categories of mentally and physically handicapped children into regular classrooms. The mainstreaming movement has had and will continue to have a significant impact on public school systems and on classrooms throughout the country (Acker, 1975; Klein, 1975; Lilly, 1975).

New roles and responsibilities have been assigned to teachers and administrators. Under the new regulations, each state has been required to develop a comprehensive personnel program with provisions for inservice and preservice training and an information dissemination plan. New training opportunities have been opened to meet the greater need for special education personnel. In addition, the mainstreaming movement has called for changes in attitudes, socioeducational structures, and behaviors as well (Lilly, 1975; Nober, 1977; Shotel et al., 1972; Ziven & Redden, 1974).

According to proponents of the mainstreaming movement, the integration process would have major benefits. Some important advantages are as follows: (1) integration would help handicapped children achieve more academically and socially by not isolating them from peer groups and the rest of the normal school community; (2) handicapped youngsters would learn to cope better with the "real" world which they will have to face by the time of adulthood; and (3) integration will help normal children towards better understanding of individual differences in others through exposure to handicapped students (Berry, 1973).

Proponents of special education point out that something must be done for the significantly increasing handicapped population of school children in the United States. Authorities state that there are over eight million school children in the United States at the present time who have been classified as physically and mentally handicapped, disturbed, or

mentally retarded; these youngsters now represent over twelve percent of the country's total population of school children within the six to nineteen age group ("Into the Mainstream," Time, 1976).

According to the federal government, integration can be ideally accomplished within a school system as based on a continuum of educational services ranging:

from total education within the regular class for the mildly handicapped, to the highly specialized services outside of the public school system for the most severely handicapped. . . . Ideally, teachers will be provided support services to enable them to meet needs of students within the classroom. (East, 1976, pp. 1-3)

However, a growing number of educators and administrative authorities have fears regarding achievement of the ideal form outlined by the federal government (Kolstoe, 1972; McKennon, 1970; Nelson & Schmid, 1971; Vergason, 1975). Some fear schools will discard the ideal model in favor of an inferior expediency for financial and budgetary reasons; others believe the ideal model may be discarded because of negative and critical attitudes on the part of teachers, methodological inadequacies, and lack of precise guidelines for concrete ways to implement the ideal form (Abeson, 1974; Gickling & Theobald, 1975; Martin, 1974; Shotel et al., 1975).

The expressed concern in these areas has motivated researchers to attempt the identification of reasons for negative attitudes on the part of teachers and administrators and to define specific ways to successfully implement mainstreaming programs. Such attempts have often failed or been less

than desirable. Great concern has also been expressed for the development of some tool or instrument to meaningfully assess causative forces behind negative attitudes and ways to establish the ideal mainstreaming form. A search of the literature has revealed, however, that few studies have focused specifically on this particular problem area. Still, the need for a valid and reliable tool grows more critical as the mainstreaming movement continues to increase in force and momentum. According to Gickling and Theobald (1975):

Neither . . . the results of articles which have been critical of mainstreaming . . . nor the admission of methodological inadequacies within efficacy studies has (served to slow) . . . down the mainstreaming movement. (p. 318)

In summary, without such a tool the causes of negative attitudes toward mainstreaming cannot be precisely identified nor can guidelines for establishment of mainstreaming programs in definitive behavioral terms be specifically delineated. The total result on the mainstreaming effort may be not only deteriorated education for handicapped children, but less effective education for normal students as well.

Statement of the Problem

The problem of the study was to develop and test the use of the summated sliding-scale technique to determine if the summated sliding scale provided more precise information for the identification of specific variables influencing mainstreaming attitudes.

The purpose of this investigation was an attempt to facilitate better diagnosis of the mainstreaming problem.

Specifically, the purpose was to determine whether or not a tool could be developed to pinpoint and identify causative factors influencing negative attitude formation among public secondary school educators toward mainstreaming.

Definition of Terms

Specific terms were defined by the present investigator as follows:

Attitudes: Attitudes are varied and complex psychological processes (Goldenson, 1970; Lemen, 1962). They involve motivational, intellectual, and emotional components in varying ratios and proportions; a predisposition to act, believe, or feel favorably or unfavorably toward objects, persons, situations, or ideas (DeCecco, 1968; Frandsen, 1967; Goldenson, 1970; Loree, 1965). In this case, the term is operationally defined in reference to the attitudes of special educators and teachers and by the results derived from test instrument administration, specifically as pertained to views regarding to mainstreaming.

Mainstreaming: Although there are a wide variety of definitions for this term, mainstreaming refers generally to a recent movement in education holding as its primary objective the provision to all American school children of the most appropriate and effective educational experiences which will ultimately lead to self-reliance and independence (East, 1976, pp. 1-2). By maximizing interactions of handicapped and non-handicapped students, the mainstreaming process is intended to fully protect the educational rights of all school age

children in the United States (Gearheart, 1972; Martin, 1974; Reger, 1974).

Special Educational Questionnaire (SEQ): This is an instrument developed and validated by Gickling and Theobald (1975) specifically for the purpose of assessing teachers' attitudes toward mainstreaming and communications between regular and special education teachers. The form, or technique of the instrument is based on the Thurstone scale technique (Thurstone, 1929).

A copy of this questionnaire is included in Appendix A. Hereafter it is referred to as Form A.

Special Educational Questionnaire-Modified Form (SEQ-M): This questionnaire is a version of the instrument developed by Gickling and Theobald (1975). It was modified for the present study. Special permission was received by these investigators to use and to modify the scale. It was the major instrument used in the present investigation and was based on the Likert-type summated scale technique (Likert, 1932). It differs from the original in that statements and items were not changed, but the number of possible responses obtainable for each item was significantly increased. In this way the modified instrument thus represented a five-point sliding-scale continuum able to measure a variety of shades and dimensions of an attitude or view of major concern to the study in question.

A copy of this questionnaire is included in Appendix A. Hereafter this instrument is referred to as Form B.

Summated, Five-Point Sliding Scales: Such scales are test measures specifically developed to rate an attitude or opinion along a five-point sliding scale continuum representing different dimensions of attitude or opinion (Issac & Mitchell, 1974; Kerlinger, 1973; Noll, 1965). An instrument based on the summated technique is not limited to simple agreement (yes) and disagreement (no) responses. Subjects thus reveal more precise natures and relative strengths of attitudes and perceptions on the subject matter in question (Glass & Stanley, 1970; Mehren & Ebel, 1967; Thorndike, 1971).

Thurstone-Type Scales: These scales are test measures illustrating the "equal-appearing-intervals" technique of scale measurement (Kerlinger & Pedhazure, 1968; Oppenheim, 1966; Shaw, 1967). Opinion-type items and statements, thus, are placed on a two-point scale continuum, usually, representing least favorable (no) and most favorable (yes) responses. A subject is asked to place a check mark after all statements endorsed as expressing his own opinion or attitude and again after items least expressing his own attitudes.

Kerlinger (1973) has noted that "the scoring of agreement-disagreement types of scale for every type of attitude object can impose great difficulty (p. 504). According to authorities, measurement of attitudes and opinions can take on many forms, but the most favorable is the Likert-type scales; as compared to the Thurstone, Likert scales are easy to construct, the scale can be scored rapidly, and the scale compares very favorably in both validity and reliability to the scales of

Thurstone and Remmers (Downie, 1967; North & Schmid, 1960; Robinson & Shaver, 1969; Shaw, 1967).

Hypotheses

Ho₁: There is no statistically significant difference in ratings on the Form B questionnaire with the summated five-point sliding scale by sex for regular classroom teachers and for special classroom teachers by item on the questionnaire.

Ho₂: There is no statistically significant difference in ratings on the Form B summated five-point sliding scale between males and females by item for regular and special classroom teachers.

Ho₃: There is no statistically significant difference in the number of "yes" and "no" responses to Form A questionnaire between males and females by item for regular and for special classroom teachers.

Ho₄: There is no statistically significant difference in number of "yes" and "no" responses to Form A questionnaire between regular and special classroom teachers for males and for females.

Ho₅: There is a statistically significant relationship between mode of response on Form A and Form B questionnaires for male and female regular and special classroom teachers by item.

Organization of the Study

The report of this investigation is divided into five chapters. Chapter I contains the statement of the problem,

definitions of important terms, hypotheses, research design, and organization of the remainder of the study. The survey of related research and literature is reported in Chapter II. The following chapter contains the description of the subjects, materials, procedures, data collection procedures, and statistical techniques of the present investigation. Chapter IV consists of the investigation's finding through analysis of the collected data. The summary, findings and discussion, and recommendations of the investigation as derived from the findings comprise the subject matter of concern in Chapter V, the concluding portion of the study.

CHAPTER II

REVIEW OF RELATED LITERATURE

A major challenge facing the American educational system in recent years has been the increasing need to precisely identify variables influencing negative attitudes toward mainstreaming on the part of public school educators. Additional incentive or impetus has been given to the search by the significantly accelerating mainstreaming movement in education, particularly during the last decade.

Concern has produced volumes of literature on attitudes towards mainstreaming generally and individual authoritative opinions as to the merits or demerits of the movement specifically (Christopolos & Renz, 1969; Canning, 1973; Greer, 1975; Witty, 1975). Search of the available literature has revealed, however, that data derived from research which specifically focused on testing teacher attitudes towards mainstreaming was severely lacking. Literature related to assessment tools developed to measure educational attitudes in general was more available. Literature pertaining directly and indirectly to the development and refinement of tests measuring levels and dimensions of attitudes and opinions in regard to a wide variety of educational spheres was found to be readily accessible. This was subsequently taken into consideration. The review of literature contained in this chapter, thus, has been subsectioned accordingly. An initial

section provided an overview of the history and development of educational attitude and interest measures. Major developments in test instrument refinement were identified. The following section reviewed literature pertaining specifically to summated scale development and testing. Studies related to mainstreaming attitudes and research investigations attempting to assess attitudes through the use of test instrument administration were reviewed in the third section. More important findings were included in the final summary section.

Test Instrument Development

Measurement and evaluation have always been integral parts of the educational and intellectual history of mankind; major advancements in test development, however, have essentially evolved in the present century (Chase & Ludlow, 1966; Chauncey & Dobbin, 1963; Humphry & McAloon, 1974; Payne, 1968).

Before 1928, reviewed literature indicated that the evaluation of attitudes derived from simple questionnaires which never included statistical treatment to ascertain validity, bias, or reliability. In 1928, Thurstone developed the first scientific measurement instrument. Interest in such development, however, was sparked by J. M. Rice who, in the late 1890's, constructed a standardized test to be used specifically in the field of education. This development provided the necessary incentive for increased research, and ultimately, for test refinement carried forward by Thurstone.

The Thurstone Scales measured attitudes of approximately thirty subject matters, including such areas as capital

punishment, censorship, communism, patriotism, and the Church. In scale construction, large numbers of statements were gathered from various groups of educators and also from current literature. The list was edited and reduced to about one hundred short statements. From the sorting by three hundred judges and the development of sliding scale values, ambiguous and irrelevant statements were eliminated and the final group was compiled.

Although the Thurstone test has some limitations, it has been considered very valuable in the development of comparisons between groups and in determining shifts of opinion, particularly in the area of education (Bloom et al., 1971; Davis, 1970; DeCecco, 1968; Goldenson, 1970). Several other investigators followed Thurstone's example and attempted to develop attitude instruments which would be reliable and valid. The major advances are presented in the following subsections.

Differential Scales

According to the literature, differential scales were the forerunners of the summated and cumulative scales (Barr et al., 1958; Furbstein, 1967; Linderman, 1971). When using the differential scale, a respondent selected only those items which coincided with his or her beliefs. This procedure thereby allowed for the localization of the subject's attitude toward the thing, group, object, or person in question. In addition, it allowed for the placement of one subject's attitude in relation to the views of others regarding the same area or subject of concern (Nunnally, 1967; Shaw, 1967).

The Thurstone test was most representative of this type of attitude test instrument. However, Thurstone's equal-appearing interval scales were built on certain limiting or restrictive principles which enabled the scaling of attitude items. Kerlinger (1975) had explained:

While the ultimate product, a set of attitude items, can be used for the same purpose of assigning individuals attitude scores, equal-appearing interval scales also accomplish the important purpose of scaling the attitude items. An item is assigned a scale value and the scale indicates the strength of attitudes of an agreement response to the item in question (p. 497).

Cumulative Scales

The cumulative type of scale was devised on the principle that a subject would indicate his or her attitude toward an object by agreeing with all the items on the favorable side of his or her own position and would disagree with the items on the unfavorable side of his or her own position. Cumulative scales were constructed so that there would be a definite relationship between the items representing different degrees of unfavorableness or favorableness. This type of measure, also called the Guttman scale, consisted of a small set of homogeneous items that were unidimensional. Kerlinger (1973) had explained that unidimensional scales measured one variable only. The scale derived its name from the cumulative relation between items and total scores.

Development of Summated Scales

The summated scale, first developed by Likert in 1932, reduced the amount of time needed for the construction of a

differential scale. It was also the first test instrument to allow for the testing of large groups of persons, because administration necessitated the help of a single administrator only (DeCecco, 1968; Goldenson, 1970; Issac & Mitchell, 1974; Kerlinger, 1973).

According to Likert (1932), the results obtained in constructing the present scales demonstrated the value of the following criteria:

1. It is essential that all statements be expressions of desired behavior and not just statements of fact.
2. The second criterion is the necessity of stating each proposition of concern in clear, concise, straight-forward statements.
3. In general, it would seem desirable to have each statement so worded that the model reaction to it is approximately in the middle of the possible responses.
4. To avoid any space error or any tendency to stereotyped responses, it seems desirable to have the different statements so worded that about one-half of them have one end of the attitude continuum corresponding to the left or upper part of the reaction alternatives and the other half have the same end of the attitude continuum corresponding to the right or the lower part of the possible reaction alternatives (pp. 28 - 30).

Summated rating scales allowed for the intensity of attitude expression. Greater variance resulted which indicated a major advantage over other types of scales (DeCecco, 1968; Guilford, 1954; Nunnally, 1967). In Likert's construction of this type of attitude scale, statements were not classified by a group of judges, but were selected, rather, on the basis of the responses made by subjects to whom they were administered. Responses were not limited, moreover, to expressions

of simple agreement or disagreement; rather, they were graded and given values from one to five. A total score consisted of the sum of these item scores. Because empirically developed forms were also provided, any given score could be compared.

The summated scale allowed each respondent to express his or her thoughts regarding each of the included statements. A respondent's attitude toward the subject, object, thing, group, or person in question was indicated by the summing of the scores assigned to each item response. According to authorities, this type of scale can be scored rapidly and compared very favorably in validity and reliability to the scales of both Thurstone and Remmers (Harrington, 1969; Issac & Mitchell, 1974; Linderman, 1971; Payne, 1968).

It should be explained that the reliability of a test is determined by the extent to which scores are consistent and accurate while the validity of a test is determined by the extent to which it measures that which it is designed to measure (Bernstein, 1964; Ostle, 1963; Reitz, 1964). The most straightforward way to determine the validity of a test, according to Baggeley (1964), is to correlate it with another measure (the criterion) which accurately measures the same thing; thus, the key to validity studies is the determination of the more appropriate yardstick against which to measure the test in question (Cassel & Klas, 1975; Greer, 1975).

A summated scale, then, is a set of attitude items all of which are considered to be approximately equal in "attitude value." To each item the subjects respond with degrees of

agreement or disagreement. As with all attitude scales, the purpose of the summated scale is placement of a respondent or group of respondents somewhere on an agreement continuum of the attitude or attitudes being determined.

According to Kerlinger (1973), the summated scales appear to be the most useful in regard to behavioral research and in comparison to other types of developed scales:

Of the three types, the summated rating scale seems to be the most useful It is easier to develop . . . and yields about the same results as the more laboriously constructed equal-appearing-interval scale. . . . Summated rating scales can be adapted to many needs of behavioral researchers. Cumulative scales would seem to be less generally applicable. (p. 409)

Individually constructed test instruments and instrument batteries currently in use were based on one of the three major test instruments developed: the Thurstone scales, the Remmers' Matter-Type scales which also used the equal-appearing-intervals techniques, and the Likert summated scales. All were designed to measure attitudes, opinions, and views. Selection of one type over the others essentially was a matter for the individual researcher as related to his or her specific investigation needs, unique testing situation, and sample population (Anastasi, 1968; Hargreaves, 1974; Schultz & Rucker, 1975; Shaw, 1967; Snedecor & Cochran, 1967).

Attitudes Toward Mainstreaming

The current mainstreaming movement, according to Gickling and Theobald (1975), was destined to effect every one of the presently existing two million public school classrooms throughout the country. The researchers had noted that:

Regular teachers are now being required to mainstream mildly handicapped children at an unprecedented rate. The movement . . . has resulted largely from the conviction of special educators who laud its praises. . . . At the present time, the emphasis is clearly away from self-contained practices as the primary form of special educational services. (Gickling & Theobald, 1975, p. 318)

Many investigators have warned that if the mainstreaming movement was ever to realize success, teacher attitudes toward working with mildly handicapped students must be accurately assessed: "It is frightening to think that education with its commitment to individualized instruction and recognition of individual differences, might fail to recognize individual preferences of its own practitioners" (Gickling & Theobald, 1975, p. 329).

Shotel and his co-workers (1972) were one of the first research teams to discover that a critical communications problem surrounded the mainstreaming issue. These researchers assessed teacher attitudes associated with the integration of handicapped children into regular classrooms and found that the adequacy of existing communication procedures was very doubtful. Only thirty-five percent of regular educational personnel indicated that attempts had been made to inform them about special children and their respective programs. Shotel and his associates (1972) discovered the communications problem through their examination of actual organizational mechanics used to disseminate data about exceptional children and educational services. The research investigation concluded, thus, that without adequate information and training procedures

for regular educators as regarded assets and limitations of mildly handicapped students, special educational efforts would continue to see the formation of negative attitudes, particularly on the part of regular teachers.

Canning's (1973) study noted the lack of a comprehensive plan and precisely established behavioral guidelines for putting mainstreaming programs into practice. According to this investigation, the government unveiled aspects of the program before developing a satisfactory method for carrying it out. The study concluded that responsibility for the establishment of precise guidelines has yet to be specifically delegated; until this can be accomplished, the mainstreaming movement will not realize success.

According to the National Council on Education Professions Development (East, Today's Education, 1976), mainstreaming may produce adverse results unless a major effort was initiated to help teachers cope in the daily classrooms. The study pointed out that it was not that teachers were unwilling to teach handicapped children; rather, teachers wanted special training and support services to meet the needs of students who require "special treatment." According to the analysis of data in this study, the following recommendations were made:

1. That states study mainstreaming and its alternatives, and strictly define the conditions under which mainstreaming will be permitted (children's needs, size of classes, supporting services, preparation of staff members, and so forth).

2. Support of in-service training of regular classroom teachers.

3. Research and development with regard to the feasibility of several types of widespread delivery systems for in-service training (including instructional television, standardized materials, and so forth).

4. Coordination and support of federal sources to provide teachers and school systems with materials, information and consultation which will increase their capacity to serve handicapped children.

5. Certification of teachers--that the Office of Education or the National Institute of Education sponsor regional conferences which aim at the examination and rapid revision of certification requirements to include training in the education of handicapped children.

Gickling and Theobald (1975) also attempted to assess teacher attitudes toward equal educational opportunity for exceptional children. At the time the researchers conducted the study, special education was in a state of transition; state school systems were just beginning to comply with mandatory special education legislation as applied to each school system's unique circumstances and situations. Thus, problems related to identifying students' needs were receiving primary emphasis; procedural aspects of delivering services were running a close second. The researchers noted, if their questionnaire had been administered during the 1973-1974 academic school year, that subjects responses might have been more in keeping

with a mainstreaming posture. The schools included in their sample had already established in-service and training programs as priorities.

Nevertheless, Gickling and Theobald's (1975) study was still able to reach several important conclusions. The sampled population, first of all, was undecided about the prospects of mainstreaming exceptional children. According to the researchers:

Even though the (data) . . . indicated that most regular and special education personnel felt that self-contained practices restricted and discriminated against exceptional children . . . (data analysis) . . . showed no overwhelming support on the part of either group to do away with the self-contained classroom for the mildly handicapped. (Gickling & Theobald, 1975, p. 326)

This research investigation concluded that poor overall communication on the part of special education had led to regular educational personnel's hesitant attitudes about mainstreaming. This finding made Gickling and Theobald wonder, subsequently, whether or not all teachers were equally willing to mainstream mildly handicapped children.

In summary, the available literature, although limited, agreed with the conclusions reached by Gickling and Theobald (1975). The literature had demonstrated widespread agreement that negative attitudes and perceptions held by many educators has served to hinder successful integration of the mildly handicapped into the educational mainstream (Christopolos & Renz, 1969; McKennon, 1970; Mosley & Spicker, 1975; Shotel et al., 1972). The same researchers are not as clear as to the reasons and causes for the development of the negative attitudes and views, however.

Summary of the Literature

The purpose of this chapter was to review the literature relevant to the problem of the present investigation. An initial section reviewed the literature pertaining to the history and development of test instrument tools for the assessment of attitudes in various educational spheres. Two types of scale developments were outlined: differential and cumulative. It was noted that the Thurstone scales best represented the differential scale development, while the Osgood scale more nearly represented the second, or cumulative scale development. Both types were verified as to reliability and validity for assessing attitudes.

The second section focused on the development of summated scales. It was noted that Likert-type scales best represented the type of scales allowing for the intensity of attitude expression. The literature acknowledged the summated scales as the most useful for behavioral research purposes and several studies were cited for verification of summated scale yields. According to authorities, this type of scale can be scored rapidly and compares very favorably in validity and reliability to the scales of both Thurstone and Remmers.

The final section reviewed literature pertaining to attitudes toward mainstreaming. Research studies indicated that communication problems existed between regular teacher knowledge, information, and training and special educational efforts. As a result of poor overall communication on the part of special education, regular educational personnel had hesitant,

undecided, or negative attitudes. There seemed to be agreement in the literature that the development of negative attitudes and views toward mainstreaming had served to hinder successful integration of the mildly handicapped into the educational mainstream to a certain degree.

CHAPTER III

METHODS AND PROCEDURES

A questionnaire survey research design was employed in this investigation. The primary intent of the study was to test the use of the summated sliding-scale technique for the purpose of producing more precise and accurate data for identification of specific variables. These variables were: communication problems existing between special and regular educators regarding current mainstreaming programs and trends in special education; attitudes of special and regular educators toward the mainstreaming movement; areas of vagueness related to ways of incorporating mainstreaming policies and programs into public school classrooms.

Previous portions of the investigation explained the specific problem of the study and reviewed the literature pertinent to the subject of concern. The purpose of this chapter is to explain in detail the methods and procedures of the present investigation. Following sections describe the method of selecting subjects, test instruments used by the study, and the method of collecting the data.

Selection of Subjects

All subjects were secondary school educators selected from Putnam City and Oklahoma City school systems. These schools were selected because of size of district, availability,

and accessibility. A total of 309 subjects comprised the sample. Of these, 184 were female and 125 were male. A summary of the demographics is provided in Table 1 of the sample. As indicated, the sample consisted of 266 regular educators and 43 special educators. Of the regular educators, 160 were female and 106 were male. Of the special educators, 19 were male and 24 were female.

A breakdown of the schools included in the sample and the number of completed questionnaires received from each school are revealed in Table 2. As indicated, the greatest number of completed and returned questionnaires were received from Capitol Hill High School educators.

Description of the Test Instrument

The test instrument used by the present investigation was Form B of the Special Education Questionnaire (see Appendix B), a modified version of Form A of the Special Education Questionnaire (see Appendix A). The original test, Form A, was developed and validated by Gickling and Theobald (1975) to assess teachers' attitudes toward mainstreaming and communications between regular and special education teachers.

The present investigator received special permission to use and to modify the scale originally developed and tested by Gickling and Theobald (1975). After the investigator received permission, the original scale responses were modified. The original "yes" and "no" possible responses were expanded to a possibility of five different responses, each representing a shade of either agreement (yes) or disagreement (no).

TABLE 1
DEMOGRAPHICS OF THE SAMPLE POPULATION

SAMPLE NUMBER:	309 Total	125 Male Secondary Educators 184 Female Secondary Educators
REGULAR TEACHER NUMBER:	266 Total	106 Males 160 Females
SPECIAL EDUCATION TEACHER NUMBER:	43 Total	19 Males 24 Females
AREAS OF EMPLOYMENT:	Mathematics English Science History Art/Music	Home Economics/Vocational Education Industrial Arts/Auto Mechanics Counselor/Administrator Coach/Physical Education Special Education/Other
DISTRICT SIZE:	Less than 10,000 = -0- 10,000 and Over = 309	
CERTIFICATION STATUS:	Certification not Required = -0- Certification Required = 309	

Subjects now had a choice of five potential responses. These included: "strongly agree," "agree," "uncertain," "disagree," and "strongly disagree." In this manner, the original two-point scale was transformed into a five-point sliding scale continuum.

It is important to note that the modified version of Gickling and Theobald's (1975) instrument differed only with respect to the number of possible responses to statements and items. Original statements and items, in other words, were not altered as to meaning, implication, or number of items included.

Collecting the Data

Special Education Questionnaire sets (Forms A and B) were mailed to the sample population. A cover note was included with each set to explain the purpose of the questionnaires and how the data were to be used. Potential subjects were asked to complete both questionnaire forms and return them by mail as soon as possible.

A total of 500 questionnaire sets were mailed. Of these, 309 were completed and returned by mail. Details with respect to the number of questionnaires received from each of the schools included in the present study are provided in Table 2.

Statistical analysis of the collected data involved chi-square and contingency coefficient computations. Chi-square was a statistic designed to summarize the intent of difference of observed data from expected data (Baggeley, 1964; Glass & Stanley, 1970; Kerlinger, 1973; Snedecor & Cochran, 1967).

TABLE 2

BREAKDOWN OF SCHOOLS INCLUDED IN THE STUDY AND THE
NUMBER OF QUESTIONNAIRES RECEIVED FROM EACH

Name of School	Number of Questionnaires Mailed	Number of Questionnaires Returned
Capitol Hill	56	56
Southeast	55	44
Star Spencer	45	35
Northwest	46	34
U.S. Grant	54	31
Classen	46	30
John Marshall	65	29
Northeast	45	23
Douglass	45	15
Putnam City Indep. Dis- trict Schools (includes: Putnam City High, Hefner Jr., Central Jr., Western Oaks, Putnam City West)	43	12
TOTAL	500	309

Chi-square was the sum equal to the square of the observed first cell frequency minus the expected first cell frequency, divided by the expected first cell frequency, plus the same for the second cell, and so on for as many cells as the table contained.

Kerlinger (1973) had explained that chi-square (χ^2), like other statistics that indicate statistical significance, "tells us nothing about the magnitude of the relation. It is a test of the independence of the variables It is not, strictly speaking, a measure of association" (p. 171). It was for this reason, specifically, that the present investigation also employed another measure of association, contingency coefficient analysis. Of the several statistics that have been developed to extend a chi-square measure of association to tables larger than 2 by 2, Pearson's C, called the contingency coefficient, was the most appropriate to apply and could be used with any size contingency or crossbreak table (Baggeley, 1964; Kerlinger, 1973). This traditional measure is equal to the square root of chi-square divided by chi-square plus N (number of scores or data in the set of data). Although this measure also has limitations, "it nevertheless yields a measure of association that is useful if used with circumspection" (Kerlinger, 1973, p. 172). Chi-square analysis was used in the present investigation to compare "yes" and "no" responses, as well as the five sliding scale responses, of regular and special educators by sex and by class.

CHAPTER IV

DATA ANALYSIS AND RESULTS

The purpose of this portion of the present investigation is to present the statistical analysis of the data gathered from regular and special education teachers through administration of the Special Education Questionnaire (Forms A and B) test instrument. Analysis of the data and reporting of the results is divided into separate sections. The first section presents the data and computations resulting from chi-square analysis. The data and computations deriving from contingency coefficient analysis are presented next. Results obtained from both analyses are used to test the investigation's null hypotheses in the third section. The findings and results are included in the final summary section.

Chi-Square Analysis

The chi-square (χ^2) test was used to determine if the observations differed significantly from expectation (Baggeley, 1964; Glass & Stanley, 1970; Kerlinger, 1973; Snedecor & Cochran, 1967). A comparison of test instrument responses by item of frequency ratings for male and female subjects of the study separately by class for each of the 31 items included in Form B of the instrument is presented in Table 3. Due to its length, Table 3 is exhibited in Appendix B. An asterisk immediately follows any chi-square value of significance. Significance

was determined at the .05 critical level of probability for the appropriate degrees of freedom (Baggeley, 1964; Kenney & Keeping, 1954; Yuker, 1968). According to the chi-square tables, the minimum values significant at the .05 level for 1-4 degrees of freedom is as follows: $df\ 1 = 3.841$, $df\ 2 = 5.991$, $df\ 3 = 7.815$, and $df\ 4 = 9.488$.

Degrees of freedom, it should be noted, is the number of values in a set that may be assigned arbitrarily depending on the number of units involved. Degrees of freedom are actually the number of independent parameters or the number of frequencies that are "free" to vary and thus can be assigned arbitrarily (Blakeslee & Chinn, 1971; Chase & Ludlow, 1966; Downie, 1967; Huntsberger, 1967).

Chi-square analysis with respect to Form B items for comparison by item of frequency of ratings for male and female subjects separately by class produced only five values of significance as indicated in Table 3. Of a possible 62 values of significance, only four were significant for the regular class and one for the special class. Specifically for items 10, 14, 15, and 21 the obtained chi-square values for the regular class were 16.733, 10.762, 20.832, and 37.142, respectively. For the special class, a chi-square value of 4.793 was obtained for item 26.

Comparisons of Form B data by items of frequency of ratings by class separately by sex are presented in Table 4 exhibited in Appendix B because of its length. A chi-square value is included in this table for each of the 31 questionnaire

items. Again, asterisks immediately following chi-square values indicate significance at the .05 probability level for the respective degrees of freedom which ranged from 1 to 4. The chi-square analysis produced a total of 29 significant values. Of these, 12 were obtained by males and 17 by females. In other words, male teachers in regular classes differed significantly with males in special classes on 12 of the 31 items; regular class female teachers differed significantly with special class female teachers on 17 of the 31 items. Males and females in regular classes differed from males and females in special classes on 9 of the 31 items, or on 29.3 percent of the total items.

The chi-square analysis of data obtained from Form A of the test instrument is presented in Table 5. Chi-square values were obtained from comparisons made separately by sex within classes on yes-no responses and for classes separately by sex for yes-no responses. Table 5 is exhibited in Appendix B. Similar to the previous analyses, significance for Table 5 chi-square values were determined at the .05 critical probability level for the appropriate degrees of freedom where the significant chi-squares are identified by an asterisk.

A total of 8 chi-square values of significance were obtained for the regular class and 1 for the special class from comparisons separately by sex within classes on yes-no responses. These results were somewhat similar to those obtained from chi-square analysis of Form B data, comparing item of frequency of ratings for male and female subjects

separately by class. In both cases, chi-square values of significance were obtained for items 10, 14, and 15. This indicated that in both analyses, males and females in regular classes disagreed on these particular items. No significant difference was obtained for item 21.

Table 5 also indicates that a total of 12 chi-square values of significance were obtained for males and 17 for females from comparisons of classes separately by sex for yes-no responses. The same number of chi-square values of significance were obtained from comparison by item of frequency of ratings by class separately by sex. However, the values did not pertain to the same items in many cases. For example, only 10 of the 17 significant values obtained from the second analysis for females were for the same items found significant for females from the first analysis. For males, 7 of the 12 values found significant in the second analysis were for the same items found significant from the first analysis. Results of the chi-square analysis for yes-no responses for males, then, indicated that males in regular classes significantly disagreed with males in special classes on 12 of the 31 questionnaire items and females in regular classes disagreed with special class female teachers on 17 of the 31 questionnaire items, almost 55 percent of the total items. Results also indicated that regular class males and females disagreed with special class male and female teachers on different items in many cases as compared to their responses to Form B of the test instrument.

Contingency Coefficient Analysis

Coefficients of contingency between the two instrument formats on the 31 items for the regular and special classes subdivided by sex are presented in Table 6, represented in Appendix B. An asterisk immediately following each contingency coefficient indicates significance. Significance in each case was determined at the .05 critical probability level. The minimum contingency coefficient (C) values of significance for various N's (those pertaining to the present analysis) and differing degrees of freedom are as follows:

<u>For an</u> <u>N of:</u>	<u>df</u>	χ^2 <u>.05</u>	<u>The Minimum Value of</u> <u>Significance for C is:</u>
106	4	9.488	.2866
160	4	9.488	.2366
19	2	5.991	.4896
19	3	7.815	.5399
24	2	5.991	.4469
24	3	7.815	.4950

Table 6 will show that significant coefficients of contingency were obtained in the majority of cases. For the regular class males and females, almost every C was significant. For special class male teachers, 10 significant Cs were obtained; for special class female teachers, 13 significant Cs were obtained. However, in the case of special class male teachers 12 values could not be computed and for special class female teachers, 13 values could not be computed because the responses were made in one direction. Results of contingency coefficient analysis for special males showed that 10 out of 19 values were significant; for special class females; 12 out of 18 values were significant.

Testing of Hypotheses

The present investigator set forth five hypotheses which were expressed in the null form. Testing of the hypotheses below followed the same format in each case where each hypothesis was restated in turn. Discussion of results from the statistical analysis and testing immediately follows each restatement.

Ho₁: There is no statistically significant difference in ratings on Form B questionnaire with the summated five-point sliding scale by sex for regular classroom teachers and for special classroom teachers by item on the questionnaire.

The comparisons between responses made by males and females were analyzed by use of chi-square. The majority of differences by item did not reveal statistically significant results. Of the 31 items only items 10, 14, 15, and 21 for the regular classroom teachers showed a real difference. On item 10 the female teachers made six times more responses on the "strongly disagree" scale than men. On item 14 the greatest discrepancy was found on the "agree" response, on item 15 the "undecided" response, and on item 21 both the "disagree" and "strongly disagree" responses all in favor of the females.

Among the special classroom teachers only statistically significant difference was found on item 26. In this case the difference was in favor of females on the "agree" response by 50 percent. Neither males nor females gave "undecided" or "disagree" responses.

In view of the small percentage of items that showed sex differences in responses, 13 percent for regular classroom teachers and three percent for special classroom teachers, it was concluded that no difference was evident between sex for regular and special classroom teachers (Sakoda, Cohen, & Beall, 1954; pp. 172-175). Therefore, the hypothesis of no differences by sex was accepted. The male teachers and female teachers performed similarly.

Ho₂: There is no statistically significant difference in ratings on the Form B summated five-point sliding scale between males and females by item for regular and special classroom teachers.

As shown in Table 4 the chi-square analyses indicated statistically significant differences between regular and special classroom male teachers on items 10, 11, 13, 14, 17, 22, 24, 28, 29, 37, 38, and 40. For female teachers differences occurred on items 10, 11, 12, 17, 21, 22, 24, 25, 26, 27, 28, 29, 30, 32, 33, 38, and 40. A greater number (17 items) of differences were evident in responses to items between regular and special female classroom teachers than among male teachers (12 items). The items upon which male teachers differed from females were 13, 14, and 37 and female teachers on items 12, 21, 25, 26, 27, 30, 32, and 33.

Because of the large number of statistically significant differences found, the null hypothesis of no difference between regular and special classroom teachers' responses on the summated sliding scale was rejected. The number of

significant chi-square values were greater than expected by chance (Sakoda, Cohen & Beall, 1954, pp. 172-175). This suggested that the regular classroom teachers responded differently to the questionnaire than special classroom teachers. The spread in responses was not as varied among the special classroom teachers.

Ho₃: There is no statistically significant difference in the number of "yes" and "no" responses to Form A questionnaire between males and females by item for regular and for special classroom teachers.

The chi-square analyses yielded eight statistically significant differences on items 10, 13, 14, 15, 26, 31, 32, and 40 for regular teachers and 19 significant differences on items 12, 14, 15, 16, 17, 18, 20, 21, 24, 25, 26, 28, 29, 30, 31, 34, 36, 38, and 40. There were overlapping of differences for regular and special classroom teachers on many items. Differences by sex on items 10, 13, and 32 were unique to regular teachers while items 12, 16, 17, 18, 20, 21, 24, 25, 28, 29, 30, 34, and 38 were unique to special classroom teachers.

Since more differences occurred than could be expected by chance (Sakoda, Cohen, & Beall, 1954, pp. 172-175), the null hypothesis of no difference in response by sex was rejected. It was concluded that males did perform different from females among regular teachers and special teachers.

Ho₄: There is no statistically significant difference in number of "yes" and "no" responses to Form A questionnaire between regular and special classroom teachers for males and for females.

As indicated in Table 5 the chi-square analyses produced statistically significant differences between regular and special classroom male teachers on items 12, 13, 14, 18, 20, 21, 24, 28, 29, 34, 38, and 40. Female teachers differed on items 12, 15, 16, 17, 18, 20, 21, 24, 25, 26, 28, 29, 30, 31, 34, 36, and 38. A greater number (17 items) of differences occurred between regular and special female classroom teachers. Male and female classroom teachers were found to differ on 11 of the 31 items. The items upon which male and female teachers disagreed were 13, 14, 15, 16, 17, 25, 26, 30, 31, 36, and 40.

Results of the chi-square analyses clearly showed that there were statistically significant differences in the "yes" and "no" responses of regular and special male and female classroom teachers. The null form of hypothesis 4 is therefore rejected by this study.

Ho₅: There is a statistically significant relationship between mode of response on Form A and Form B questionnaires for male and female regular and special classroom teachers by item.

Coefficients of contingency were obtained between the "yes" and "no" responses on Form A questionnaire and the five-point scale responses on Form B questionnaire for each item by sex for regular and special classroom teachers. The coefficients are presented in Table 6. In some instances the expected frequencies were not of sufficient size or were zero, therefore the degree of relationship was not determined.

This was so indicated in the table with the notation N/A. Upon inspection of Table 6 all obtained coefficients were statistically significant for the regular classroom teachers. With the exception of items 10, 11, 18, 21, 22, 34, 35, 36, and 38 a significant relation existed between mode of responses for male special classroom teachers. For female special classroom teachers significant relationships were found in all items except numbers 10, 21, 22, 36, and 38. Because of the large number of significant relationships obtained, the hypothesis of significant between mode of responses was accepted. It was concluded that whether responses were made on a summated sliding scale or whether a simple "yes" or "no" response was given, the results would be similar. It really made no difference with respect to mode of response.

Summary of the Testing

As formulated on page 8, the present investigation put forth five hypotheses. Four of these were expressed in the null form and one was expressed in the positive form for statistical testing purposes. Chi-square and contingency coefficient analyses were the major statistical techniques employed by the study. Testing resulted in accepting one and rejecting three of the hypotheses stated in the null form, and accepting the one expressed in the positive form. Statistically significant differences were found in four testing cases, in other words.

From the comparisons by item of frequency of ratings for male and female subjects separately by class and by class

separately by sex, a picture or "profile" of the study's subjects emerged. First, males and females in regular classes did not appear to differ from the form B scale to as great an extent as the investigator was led to believe from the respondents' simple yes-no responses. Four specific areas of attitude differences were pinpointed. Regular class females more strongly believe that the philosophy of their schools was limited to the range of normal children as did their male counterparts. Regular classroom male teachers felt more imposed upon to help special education students under normal classroom conditions than did regular female teachers.

Secondly, specific areas of differences were pinpointed for special class teachers also. For example, males in special classes agreed with regular class females that being placed in a special education class restricted full participation in school activities; they, thus, significantly differed from regular class male teachers in this regard. On the other hand, special class females agreed with regular class male teachers on this issue. They, therefore, significantly differ in this respect from regular class female teachers. Both males and females in special classes believed that self-contained special education classes adequately provided academic services for the mildly handicapped and did not need to be changed. Males and females in regular classes, however, were significantly less sure in this regard.

In addition, special class males and females believed that the regular class teachers would feel more comfortable if special education would assist in providing services in the regular classroom. However, responses from regular class male and female teachers showed that they were significantly less sure in this respect. Special class male and female teachers also believed that if there was a movement away from self-contained special classes for mildly handicapped children, regular teachers would be unwilling to accept special students in their classrooms. However, regular class male and female teachers, when asked the same question, responded that they would be willing to a certain extent to accept special students in their classrooms.

According to special class male and female teachers, moreover, special education practices have been relatively free of discrimination on the basis of race and socio-economic status. Regular class male and female teachers significantly disagreed with their view, however. Finally, the majority of male and female teachers in regular classes stated that they were not acquainted with most of the information asked for in the questionnaire. Males and females in special education classes, on the other hand, were acquainted with the information.

CHAPTER V

SUMMARY, FINDINGS AND DISCUSSION, AND RECOMMENDATIONS

Mainstreaming is a belief that involves an educational process and procedure for exceptional children (Drummer, 1977; East, 1976). According to the literature, it is essentially based on the conviction that each American school-age child should be educated in the least restrictive environment in which educational and related needs can be adequately satisfied (Healey, 1976; Kavanagh, 1977; Holmes, 1976; Vernon & Athey, 1977). Many authorities have agreed that mainstreaming was destined to have an increasingly significant impact on public school systems throughout the country (Abeson, 1974; Gickling & Theobald, Goodman, 1976; Lilly, 1975; Warhock, 1976). It has been predicted, however, that mainstreaming may produce adverse results unless there is a major concerted effort on the part of special education to help teachers cope in the daily classroom situation and to help teachers and special educators better communicate (Nober, 1977; Vernon & Athey, 1977; Witty, 1975; Zivin & Redden, 1974).

The present investigation was basically oriented to this concern. The investigation focused on the extent to which a modified version of a validated test instrument, based on the summated sliding-scale technique, differed from the original with regard to responses obtained from a sample population. The purpose of the present study was an attempt to better

facilitate diagnosis of the mainstreaming problem by determining whether or not a tool could be developed to pinpoint and identify causative factors influencing negative attitude formation among public secondary school educators toward mainstreaming. By comparing scoring systems, the present investigation hoped to determine if the summated sliding-scale technique could provide more precise information.

Previous chapters have discussed separate phases of this investigation. The aim of this chapter is to relate the research and the results to the whole of the study. Following subsections are dedicated to this aim.

Summary of the Research Study

This investigation was specifically designed to test five hypotheses, four expressed in the null forms and one in the positive form:

Ho₁: There is no statistically significant difference in ratings on Form B questionnaire with the summated five-point sliding scale by sex for regular classroom teachers and for special classroom teachers by item on the questionnaire.

Ho₂: There is no statistically significant difference in ratings on the Form B summated five-point sliding scale between males and females by item for regular and special classroom teachers.

Ho₃: There is no statistically significant difference in the number of "yes" and "no" responses to Form A questionnaire between males and females by item for regular and for special classroom teachers.

Ho₄: There is no statistically significant difference in number of "yes" and "no" responses to Form A questionnaire between regular and special classroom teachers for males and for females.

Ho₅: There is a statistically significant relationship between mode of response on Form A and Form B questionnaires for male and female regular and special classroom teachers by item.

The present study employed a descriptive research design. The basic research of this study was descriptive, using survey questionnaires to collect the necessary data for analysis. The sample population consisted of 309 subjects. Of these, 184 were female and 125 male. The regular teacher group was comprised of 106 males and 160 females, a total of 266 subjects. The special education teacher group was comprised of 19 males and 24 females, a total of 43 subjects.

Statistical analyses of the collected data involved chi-square and contingency coefficient testing. Chi-square analysis was employed for comparison by item of frequency of ratings between male and female subjects separately by class, for comparison by item of frequency of ratings by class, for comparison separately by sex within classes on yes-no responses, and for classes separately by sex for yes-no responses. Contingency coefficients were computed between the two instrument formats on the 31 items for regular and special classes subdivided by sex.

Findings and Discussion

The results of the present investigation, based on the collected and analyzed data led to the following findings:

- There were statistically significant differences in the results obtained from a modified version, based on the summated five-point sliding scale technique, of a validated test instrument between regular and special classroom teachers separated according to sex by item.

- There were statistically significant differences in the number of "yes" and "no" responses between sex by item resulting from the original test instrument administered to the same sample group.

- There were statistically significant differences in the "yes" and "no" responses of regular male and female teachers as compared to the "yes" and "no" responses of special education male and female teachers.

- There is statistically significant relationship between mode of response obtained from the modified version, based on the summated five-point scale technique, and the results from the original test instrument for male and female regular and special classroom teachers by item.

- A communication problem surrounding the mainstreaming issue existed between special educators, regular teachers, and their respective school systems. Thus, the present study agreed with the view put forth by Gickling and Theobald (1975) in this respect. According to these researchers, "Information about special education students and services should preclude

all other activities if mainstreaming is to become an effective means of helping the mildly handicapped" (1975, p. 327). The majority of regular male and female teacher respondents stated that they were unfamiliar with most of the information contained in the study's questionnaire. In sum, they acknowledged the fact that they had been provided little information either on the mainstreaming movement and principles in general or on specific ways to incorporate mainstreaming into the regular classroom and special services which were available to them.

Recommendations

In light of the findings and conclusions of the present study, the following recommendations are made:

1. That future investigation be conducted, replicating the present study for the purpose of verifying or refuting the results obtained in the present investigation regarding the differences in attitudes and opinions of regular and special education teachers.
2. That further study of greater breadth and scope should be conducted into the same general subject area. A larger sample could be studied, or more public secondary schools could be included.
3. That in view of the findings, further study should be undertaken to validate and refine the tool used in the present investigation.

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APPENDIX A

SPECIAL EDUCATION QUESTIONNAIRE (A) (B)

The University of Oklahoma
College of Education

Department of Special Education

SPECIAL EDUCATION QUESTIONNAIRE (A) (B)

This is a questionnaire to elicit responses about special education programs and trends. We are asking both regular and special educators to respond to the following statements. Please read each statement carefully and on the basis of your own knowledge and opinions indicate your answer. Please note that there are two questionnaires. The same statements are contained in each. However, the first only asks for a "yes" or "no" answer, whereas the second gives you five alternative answers. Please complete both. Your immediate cooperation will be greatly appreciated.

Thank you for your time, trouble, and consideration.

Sincerely,

Evangie McGlon

PART I: Demographic Information

1. Name of school _____
2. Professional status: (area of specialization)

Math _____	Science _____	Home Ec./Voc. Educ. _____
English _____	History _____	Coach/Phy. Educ. _____
Spec. Educ. _____	Art/Music _____	Couns./Administrator _____
Ind. Arts/Auto Mech. _____	Other _____	
3. Years of experience in education: 1-3 _____ 4-6 _____ 7+ _____
4. Is there a state certification requirement for your present position of employment? Yes _____ No _____
5. Degree held: B.S. or B.A. _____ M.S. or M.A. _____
Ed.D. or Ph.D. _____
6. Professional affiliations: Spec. Educ. _____
Non-Spec. Educ. _____
7. Sex: Male _____ Female _____
8. School system: Urban _____ Rural _____
9. District/Comm. size: Less than 10,000 _____
10,000+ _____

SPECIAL EDUCATION QUESTIONNAIRE (A)

DIRECTIONS: This is the first questionnaire. Please indicate your responses by placing a check mark (✓) next to the appropriate answer. Thank you for your cooperation.

10. Do you think that being placed in a special education self-contained classroom restricts a student's chance to fully participate in activities (as student government, service organizations, etc.) normally available to students in regular classrooms? Yes _____ No _____
11. Do you think self-contained special education classes adequately provide academic services for the mildly handicapped and do not need to be changed? Yes _____ No _____
12. Do you think if given a chance special education students would participate in most school activities? Yes _____ No _____
13. Is it the school's responsibility to see that special education students benefit from the total school program? Yes _____ No _____
14. Is the philosophy of your school limited to the range of normal children? Yes _____ No _____
15. Do you think under normal classroom conditions the regular class teacher is imposed upon to help special education students? Yes _____ No _____
16. Do you think today's classroom teacher generally feels he/she has the skills to help special education students? Yes _____ No _____
17. Do you think the regular classroom teacher would feel more comfortable if special education would assist in providing services in the regular classroom? Yes _____ No _____
18. Do you think the regular classroom teacher would use the assistance of special educators if they were available as resource teachers? Yes _____ No _____
19. Do you think that, if adequate time were available to work with resource teachers, regular class teachers would take advantage of the opportunity? Yes _____ No _____
20. Some special education children are served in classes for the emotionally disturbed. Do you see these students as emotionally disturbed or having emotionally disturbed behavior? Yes _____ No _____

21. Is a child socially isolated from his normal age peers by placement in a self-contained special education class? Yes _____ No _____
22. Are children placed in self-contained special education classes more likely to seem as different if permitted to remain in regular classrooms? Yes _____ No _____
23. Do you feel special self-contained classes for the mildly handicapped have proven more effective than placement in regular classes for these children? Yes _____ No _____
24. If there was a movement away from self-contained special education classes for mildly handicapped, do you think regular teachers would be willing to accept special students in their classrooms? Yes _____ No _____
25. Do you strongly recommend the use of self-contained special education classes for mildly handicapped in the future? Yes _____ No _____
26. Do you strongly recommend the use of resource rooms for the mildly handicapped in the future? Yes _____ No _____
27. Do you strongly recommend the use of itinerant teachers for the mildly handicapped in the future? Yes _____ No _____
28. Does assignment of students to special education classes usually place great emphasis on the results of psychological evaluation? Yes _____ No _____
29. Do you think special education practices have not been free of discrimination on the basis of race and economic status? Yes _____ No _____
30. Does your State Dept. of Education make provisions for moving away from self-contained classrooms for the mildly handicapped? Yes _____ No _____
31. Has your school district specifically set aside time for workshops or presentations to inform regular teachers about the role of special education within the school system? Yes _____ No _____
32. Has your school district started a program to inform regular teachers about differences between mental retardation, emotional disturbances, etc.? Yes _____ No _____
33. Does your school district provide services for the handicapped? Yes _____ No _____

34. In your new plans is there a move away from self-contained classrooms for mildly handicapped? Yes _____ No _____
35. In your school do regular and special teachers talk informally about special education problems?
Yes _____ No _____
36. Are formal meetings arranged to carry out communications necessary for the placement of special education students in your school or school district? Yes _____ No _____
37. Are terminal goals set in your school or school district for each special student? Yes _____ No _____
38. Are follow-ups conducted in your school or school district as a result of meetings regarding the placement of special education students? Yes _____ No _____
39. Do you think your school or school district should start a program to inform all about the services provided through special education? Yes _____ No _____
40. Are you acquainted with most of the information asked for in this questionnaire? Yes _____ No _____

PLEASE GO ON TO THE NEXT QUESTIONNAIRE, PART (B)

SPECIAL EDUCATION QUESTIONNAIRE (B)

DIRECTIONS: The statements below are the same as in Part A. This time, however, you have the choice of five alternative responses. Please circle the number of the response which most nearly corresponds with your opinions or knowledge. Please answer the way you really feel, not the way you think you should feel. Please do not sign your name when you finish. It is important to the validity of this study that you remain anonymous and that you answer the way you personally feel. Again, thank you for your cooperation.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
10. Being placed in a special education class restricts a student's chance to fully participate in activities (student government, etc.) normally available to students in regular classes.	1	2	3	4	5
11. Self-contained special education classes adequately provide academic services for the mildly handicapped and do not need change.	1	2	3	4	5
12. If given a chance special education students would participate in most school activities.	1	2	3	4	5
13. It is the school's responsibility to see that special education students benefit as much as possible from the total school program.	1	2	3	4	5
14. The philosophy of my school is limited to the range of normal children.	1	2	3	4	5
15. Under normal class conditions the regular teacher is imposed upon to help special education students.	1	2	3	4	5

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
16. Today's classroom teacher generally feels he/she has the skills to help special education children.	1	2	3	4	5
17. The regular class teacher would feel more comfortable if special education would assist in providing services in the regular classroom.	1	2	3	4	5
18. Regular classroom teachers would use the assistance of special educators if they were available as resource teachers.	1	2	3	4	5
19. Regular class teachers would take advantage of the opportunity to work with resource teachers if adequate time were available.	1	2	3	4	5
20. Special education children who are served in classes for emotionally disturbed are emotionally disturbed or have emotionally disturbed behavior.	1	2	3	4	5
21. A child is socially isolated from his normal age peers by placement in a self-contained special education class.	1	2	3	4	5
22. Children placed in self-contained special education classes are more likely to seem as different if permitted to remain in regular classrooms.	1	2	3	4	5
23. Self-contained classes for the mildly handicapped have proven more effective than placement in regular classes for these children.	1	2	3	4	5
24. If there was a movement away from self-contained special classes for mildly handicapped, regular teachers would be willing to accept special students in their classrooms.	1	2	3	4	5

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
25. I recommend the use of self-contained special education classrooms for mildly handicapped in the future.	1	2	3	4	5
26. I recommend the use of resource rooms for mildly handicapped in the future.	1	2	3	4	5
27. I recommend the use of itinerant teachers for mildly handicapped in the future.	1	2	3	4	5
28. Assignment of students to special education classrooms usually places great emphasis on the results of psychological evaluation.	1	2	3	4	5
29. Special education practices have <u>not</u> been free of discrimination on the basis of race and socio-economic status.	1	2	3	4	5
30. My State Dept. of Education has made provisions for moving away from self-contained classrooms for the mildly handicapped.	1	2	3	4	5
31. My school district has specifically set aside time for workshops or presentations to inform regular teachers about the role of special education within the school system.	1	2	3	4	5
32. My school district has started a program to inform regular teachers about differences between mental retardation, emotional disturbances, etc.	1	2	3	4	5
33. My school district provides handicapped services.	1	2	3	4	5
34. There is a move away from self-contained classes for mildly handicapped in my new plans.	1	2	3	4	5
35. In my school regular and special teachers talk informally about special education problems.	1	2	3	4	5

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
36. In my school (district) formal meetings are arranged to carry out communications necessary for placement of special education students.	1	2	3	4	5
37. In my school (district) terminal goals are set for each special student.	1	2	3	4	5
38. Follow-ups are conducted in my school (district) as a result of meetings about special student placing.	1	2	3	4	5
39. My school (district) should start a program to inform all of services provided through special education.	1	2	3	4	5
40. I was <u>not</u> acquainted with most of the <u>information</u> asked for in this questionnaire.	1	2	3	4	5

PLEASE DO NOT SIGN YOUR NAME

APPENDIX B

TABLES 3, 4, 5, and 6

TABLE 3

COMPARISON BY ITEM OF FREQUENCY OF RATINGS BETWEEN
MALE AND FEMALE SUBJECTS BY CLASS

Item Number	Sex	Regular Class Rating					Sex	Special Class Rating				
		1	2	3	4	5		1	2	3	4	5
10.	Male	10	19	17	53	7	Male	9	8	0	2	0
	Female	17	24	21	55	43	Female	5	14	0	5	0
		$\chi^2 = 16.733^*$						$\chi^2 = 2.029$				
11.	Male	15	47	14	24	6	Male	9	8	0	2	0
	Female	18	50	36	35	21	Female	5	14	0	5	0
		$\chi^2 = 8.137$						$\chi^2 = 2.029$				
12.	Male	5	45	15	35	6	Male	3	14	0	2	0
	Female	20	45	25	55	15	Female	4	17	0	3	0
		$\chi^2 = 7.499$						$\chi^2 = 0.169$				
13.	Male	38	35	3	24	6	Male	17	2	0	0	0
	Female	52	65	18	20	5	Female	15	9	0	0	0
		$\chi^2 = 9.469$						$\chi^2 = 2.759$				

TABLE 3 (continued)

Item Number	Sex	Regular Class Rating					Sex	Special Class Rating				
		1	2	3	4	5		1	2	3	4	5
14.	Male	2	9	5	45	45	Male	3	5	1	8	2
	Female	5	35	16	53	51	Female	1	10	0	10	3
		$\chi^2 = 10.762^*$						$\chi^2 = 1.016$				
15.	Male	45	45	1	10	5	Male	4	12	0	3	0
	Female	40	57	25	24	14	Female	6	13	3	2	0
		$\chi^2 = 20.832^*$						$\chi^2 = 1.026$				
16.	Male	3	9	13	42	29	Male	0	0	3	10	6
	Female	6	29	23	53	30	Female	0	0	3	14	7
		$\chi^2 = 5.823$						$\chi^2 = 0.359$				
17.	Male	16	42	29	13	6	Male	2	17	0	0	0
	Female	32	68	25	27	8	Female	1	23	0	0	0
		$\chi^2 = 5.056$						$\chi^2 = 0.442$				
18.	Male	6	62	23	11	4	Male	3	12	1	0	3
	Female	16	73	35	31	5	Female	3	18	3	0	0
		$\chi^2 = 5.547$						$\chi^2 = 2.029$				

TABLE 3 (continued)

Item Number	Sex	Regular Class Rating					Sex	Special Class Rating				
		1	2	3	4	5		1	2	3	4	5
19.	Male	10	70	15	10	1	Male	2	15	2	0	0
	Female	15	84	26	27	8	Female	5	18	1	0	0
		$\chi^2 = 5.947$						$\chi^2 = 0.246$				
20.	Male	9	50	30	15	2	Male	3	13	1	2	0
	Female	17	68	45	22	8	Female	5	14	3	0	2
		$\chi^2 = 1.271$						$\chi^2 = 1.190$				
21.	Male	13	32	27	31	3	Male	3	12	0	3	1
	Female	3	25	26	68	38	Female	2	15	2	5	0
		$\chi^2 = 37.142^*$						$\chi^2 = 0.409$				
22.	Male	15	36	28	23	4	Male	3	14	2	0	0
	Female	12	62	36	41	9	Female	7	13	4	0	0
		$\chi^2 = 3.109$						$\chi^2 = 0.728$				
23.	Male	17	46	25	14	4	Male	1	10	3	5	0
	Female	33	48	34	35	10	Female	2	15	2	5	0
		$\chi^2 = 5.928$						$\chi^2 = 0.161$				

TABLE 3 (continued)

Item Number	Sex	Regular Class Rating					Sex	Special Class Rating				
		1	2	3	4	5		1	2	3	4	5
24.	Male	1	31	20	48	6	Male	0	0	0	16	3
	Female	3	41	32	69	15	Female	0	1	0	20	3
		$\chi^2 = 0.924$						$\chi^2 = 0.049$				
25.	Male	16	40	23	21	6	Male	5	3	0	9	2
	Female	27	78	19	22	14	Female	6	5	0	8	5
		$\chi^2 = 6.392$						$\chi^2 = 0.485$				
26.	Male	18	68	13	6	1	Male	9	10	0	0	0
	Female	30	77	31	14	8	Female	3	21	0	0	0
		$\chi^2 = 6.763$						$\chi^2 = 4.793^*$				
27.	Male	12	42	17	25	4	Male	2	12	1	3	1
	Female	29	57	43	25	4	Female	1	13	2	3	5
		$\chi^2 = 6.217$						$\chi^2 = 1.027$				
28.	Male	10	35	27	24	5	Male	2	17	0	0	0
	Female	15	54	42	39	1	Female	5	19	0	0	0
		$\chi^2 = 3.125$						$\chi^2 = 0.243$				

TABLE 3 (continued)

Item Number	Sex	Regular Class Rating					Sex	Special Class Rating				
		1	2	3	4	5		1	2	3	4	5
29.	Male	17	27	20	26	8	Male	0	0	0	10	9
	Female	20	48	31	39	16	Female	0	0	0	13	11
		$\chi^2 = 0.797$						$\chi^2 = 0.431$				
30.	Male	3	45	43	4	11	Male	2	10	5	2	0
	Female	7	57	70	19	7	Female	0	18	6	0	0
		$\chi^2 = 7.301$						$\chi^2 = 2.095$				
31.	Male	0	28	32	35	9	Male	0	10	3	5	1
	Female	3	51	43	45	18	Female	0	10	9	5	0
		$\chi^2 = 1.893$						$\chi^2 = 1.203$				
32.	Male	2	14	42	35	12	Male	2	2	3	11	0
	Female	4	38	56	44	16	Female	3	1	7	13	0
		$\chi^2 = 3.868$						$\chi^2 = 0.427$				
33.	Male	14	55	22	9	6	Male	5	14	0	0	0
	Female	14	73	46	12	15	Female	6	16	0	0	2
		$\chi^2 = 3.209$						$\chi^2 = 0.354$				

TABLE 3 (continued)

Item Number	Sex	Regular Class Rating					Sex	Special Class Rating				
		1	2	3	4	5		1	2	3	4	5
34.	Male	7	43	36	14	6	Male	0	4	6	4	5
	Female	11	56	60	26	7	Female	0	6	9	7	2
		$\chi^2 = 0.799$						$\chi^2 = 1.202$				
35.	Male	8	49	33	13	3	Male	0	8	7	3	1
	Female	23	69	33	24	5	Female	0	16	4	4	0
		$\chi^2 = 4.566$						$\chi^2 = 1.849$				
36.	Male	14	37	20	22	8	Male	3	2	9	3	1
	Female	12	58	53	30	7	Female	3	6	13	0	1
		$\chi^2 = 6.349$						$\chi^2 = 2.721$				
37.	Male	4	42	44	14	2	Male	7	5	2	3	2
	Female	18	63	48	21	2	Female	3	13	3	3	2
		$\chi^2 = 5.367$						$\chi^2 = 3.269$				
38.	Male	5	36	53	9	3	Male	8	7	2	2	0
	Female	14	57	61	23	5	Female	7	13	3	0	1
		$\chi^2 = 4.216$						$\chi^2 = 1.420$				

TABLE 3 (continued)

Item Number	Sex	Regular Class Rating					Sex	Special Class Rating				
		1	2	3	4	5		1	2	3	4	5
39.	Male	25	54	16	8	3	Male	2	14	2	1	0
	Female	35	63	30	17	9	Female	7	13	1	2	1
$\chi^2 = 2.791$						$\chi^2 = 1.449$						
40.	Male	11	32	22	27	14	Male	0	0	0	18	1
	Female	21	39	24	43	33	Female	0	0	0	17	7
$\chi^2 = 3.316$						$\chi^2 = 2.578$						

TABLE 4

COMPARISON BY ITEM OF FREQUENCY OF RATINGS BETWEEN
CLASS BY SEX

Item Number	Class	Male Rating					Class	Female Rating				
		1	2	3	4	5		1	2	3	4	5
10.	Regular	10	19	17	53	7	Regular	17	24	21	55	43
	Special	9	8	0	2	0	Special	5	14	0	5	0
$\chi^2 = 23.352^*$						$\chi^2 = 26.252^*$						
11.	Regular	15	47	14	24	6	Regular	18	50	36	35	21
	Special	9	8	0	2	0	Special	5	14	0	5	0
$\chi^2 = 9.930^*$						$\chi^2 = 10.953^*$						
12.	Regular	5	45	15	35	6	Regular	20	45	25	55	15
	Special	3	14	0	2	0	Special	4	17	0	3	0
$\chi^2 = 8.204$						$\chi^2 = 16.562^*$						
13.	Regular	38	35	3	24	6	Regular	52	66	18	20	5
	Special	17	2	0	0	0	Special	15	9	0	0	0
$\chi^2 = 14.821^*$						$\chi^2 = 8.043$						

TABLE 4 (continued)

Item Number	Class	Male Rating					Class	Female Rating				
		1	2	3	4	5		1	2	3	4	5
14.	Regular	2	9	5	45	45	Regular	5	35	16	53	51
	Special	3	5	1	8	2	Special	1	10	0	10	3
		$\chi^2 = 11.624^*$						$\chi^2 = 6.368$				
15.	Regular	No Data Available					Regular	No Data Available				
	Special						Special					
16.	Regular	No Data Available					Regular	No Data Available				
	Special						Special					
17.	Regular	16	42	29	13	6	Regular	32	68	25	27	8
	Special	2	17	0	0	0	Special	1	23	0	0	0
		$\chi^2 = 13.089^*$						$\chi^2 = 19.045^*$				
18.	Regular	6	62	23	11	4	Regular	16	73	35	31	5
	Special	3	12	1	0	3	Special	3	18	3	0	0
		$\chi^2 = 5.827$						$\chi^2 = 7.176$				

TABLE 4 (continued)

Item Number	Class	Male Rating					Class	Female Rating				
		1	2	3	4	5		1	2	3	4	5
19.	Regular Special	No Data Available					Regular Special	No Data Available				
20.	Regular Special	9 3	50 13	30 1	15 2	2 0	Regular Special	17 5	68 14	45 3	22 0	8 2
		$\chi^2 = 4.082$						$\chi^2 = 5.595$				
21.	Regular Special	13 3	32 12	27 0	31 3	3 1	Regular Special	3 2	25 15	26 2	68 5	38 0
		$\chi^2 = 8.475$						$\chi^2 = 27.239^*$				
22.	Regular Special	15 3	36 14	28 2	23 0	4 0	Regular Special	12 7	62 13	36 4	41 0	9 0
		$\chi^2 = 9.573^*$						$\chi^2 = 13.986$				
23.	Regular Special	17 1	46 10	25 3	14 5	4 0	Regular Special	33 2	48 15	34 2	35 5	10 0
		$\chi^2 = 2.036$						$\chi^2 = 8.367$				

TABLE 4 (continued)

Item Number	Class	Male Rating					Class	Female Rating				
		1	2	3	4	5		1	2	3	4	5
24.	Regular	1	31	20	48	6	Regular	3	41	32	69	15
	Special	0	0	0	16	3	Special	0	1	0	20	3
		$\chi^2 = 13.025^*$						$\chi^2 = 13.256^*$				
25.	Regular	16	40	23	21	6	Regular	27	78	19	22	14
	Special	5	3	0	9	2	Special	6	5	0	8	5
		$\chi^2 = 9.415$						$\chi^2 = 10.889^*$				
26.	Regular	18	68	13	6	1	Regular	30	77	31	14	8
	Special	9	10	0	0	0	Special	3	21	0	0	0
		$\chi^2 = 8.195$						$\chi^2 = 10.535$				
27.	Regular	12	42	17	25	4	Regular	29	57	43	25	4
	Special	2	12	1	3	1	Special	1	13	2	3	5
		$\chi^2 = 2.346$						$\chi^2 = 16.045^*$				
28.	Regular	10	35	27	24	5	Regular	15	54	42	39	1
	Special	2	17	0	0	0	Special	5	19	0	0	0
		$\chi^2 = 17.455^*$						$\chi^2 = 21.419^*$				

TABLE 4 (continued)

Item Number	Class	Male Rating					Class	Female Rating				
		1	2	3	4	5		1	2	3	4	5
29.	Regular	17	27	20	26	8	Regular	20	48	31	39	16
	Special	0	0	0	10	9	Special	0	0	0	13	11
$\chi^2 = 26.066^*$						$\chi^2 = 32.088^*$						
30.	Regular	3	45	43	4	11	Regular	7	57	70	19	7
	Special	2	10	5	2	0	Special	0	18	6	0	0
$\chi^2 = 2.970$						$\chi^2 = 10.598^*$						
31.	Regular	0	28	32	35	9	Regular	3	51	43	45	18
	Special	0	10	3	5	1	Special	0	10	9	5	0
$\chi^2 = 3.539$						$\chi^2 = 2.736$						
32.	Regular	2	14	42	35	12	Regular	4	38	56	44	16
	Special	2	2	3	11	0	Special	3	1	7	13	0
$\chi^2 = 6.904$						$\chi^2 = 11.387^*$						
33.	Regular	14	55	22	9	6	Regular	14	73	46	12	15
	Special	5	14	0	0	0	Special	6	16	0	0	2
$\chi^2 = 5.802$						$\chi^2 = 11.858^*$						

TABLE 4 (continued)

Item Number	Class	Male Rating					Class	Female Rating				
		1	2	3	4	5		1	2	3	4	5
34.	Regular	7	43	36	14	6	Regular	11	56	60	26	7
	Special	0	4	6	4	5	Special	0	6	9	7	2
		$\chi^2 = 7.401$						$\chi^2 = 2.483$				
35.	Regular	8	49	33	13	3	Regular	23	69	33	24	5
	Special	0	8	7	3	1	Special	0	16	4	4	0
		$\chi^2 = 0.559$						$\chi^2 = 4.298$				
36.	Regular	14	37	20	22	8	Regular	12	58	53	30	7
	Special	3	2	9	3	1	Special	3	6	13	0	1
		$\chi^2 = 6.896$						$\chi^2 = 6.529$				
37.	Regular	4	42	44	14	2	Regular	18	63	48	21	2
	Special	7	5	2	3	2	Special	3	13	3	3	2
		$\chi^2 = 21.836^*$						$\chi^2 = 4.503$				
38.	Regular	5	36	53	9	3	Regular	14	57	61	23	5
	Special	8	7	2	2	0	Special	7	13	3	0	1
		$\chi^2 = 23.081^*$						$\chi^2 = 13.119^*$				

TABLE 4 (continued)

Item Number	Class	Male Rating					Class	Female Rating				
		1	2	3	4	5		1	2	3	4	5
39.	Regular	25	54	16	8	3	Regular	35	63	30	17	9
	Special	2	14	2	1	0	Special	7	13	1	2	1
$\chi^2 = 1.925$						$\chi^2 = 2.723$						
40.	Regular	11	32	22	27	14	Regular	21	39	24	43	33
	Special	0	0	0	18	1	Special	0	0	0	17	7
$\chi^2 = 28.344^*$						$\chi^2 = 20.821^*$						

TABLE 5

COMPARISONS SEPARATELY BY SEX WITHIN CLASSES ON YES-NO RESPONSES
AND FOR CLASSES SEPARATELY BY SEX FOR YES-NO RESPONSES

Item Number	Sex	Class				Class	Sex			
		Regular		Special			Regular		Special	
		Y	N	Y	N		Y	N	Y	N
10.	Male	34	72	12	7	Regular	34	72	51	109
	Female	109	51	13	11	Special	7	12	11	13
	$\chi^2 = 31.890^*$		$\chi^2 = 0.079$		$\chi^2 = 0.202$		$\chi^2 = 1.248$			
11.	Male	70	36	11	8	Regular	70	36	102	58
	Female	102	58	17	7	Special	11	8	17	7
	$\chi^2 = 0.630$		$\chi^2 = 0.316$		$\chi^2 = 0.179$		$\chi^2 = 0.201$			
12.	Male	63	43	17	2	Regular	63	43	85	75
	Female	80	80	21	3	Special	17	2	21	3
	$\chi^2 = 1.919$		$\chi^2 = 0.775$		$\chi^2 = 5.074^*$		$\chi^2 = 8.739^*$			
13.	Male	76	30	19	0	Regular	76	30	135	25
	Female	135	25	24	0	Special	19	0	24	0
	$\chi^2 = 5.498^*$		N/A		$\chi^2 = 5.609^*$		$\chi^2 = 3.111$			

TABLE 5 (continued)

Item Number	Sex	Class				Class	Sex			
		Regular		Special			Regular		Special	
		Y	N	Y	N		Y	N	Y	N
14.	Male	16	90	8	11	Regular	16	90	49	111
	Female	49	111	11	13	Special	8	11	11	13
		$\chi^2 = 7.509^*$		$\chi^2 = 0.419$			$\chi^2 = 5.936^*$		$\chi^2 = 1.599$	
15.	Male	90	16	16	3	Regular	90	16	97	63
	Female	97	63	22	2	Special	16	3	22	2
		$\chi^2 = 16.859^*$		$\chi^2 = 0.775$			$\chi^2 = 0.725$		$\chi^2 = 7.496^*$	
16.	Male	16	80	0	19	Regular	16	80	40	101
	Female	40	101	0	24	Special	0	19	0	24
		$\chi^2 = 3.709$		N/A			$\chi^2 = 2.419$		$\chi^2 = 7.509^*$	
17.	Male	83	23	19	0	Regular	83	23	120	40
	Female	120	40	24	0	Special	19	0	24	0
		$\chi^2 = 0.224$		N/A			$\chi^2 = 3.710$		$\chi^2 = 6.268^*$	
18.	Male	68	38	18	1	Regular	68	38	101	59
	Female	101	59	24	0	Special	18	1	24	0
		$\chi^2 = 0.161$		$\chi^2 = 0.140$			$\chi^2 = 5.669^*$		$\chi^2 = 17.389^*$	

TABLE 5 (continued)

Item Number	Sex	Class				Class	Sex			
		Regular		Special			Regular		Special	
		Y	N	Y	N		Y	N	Y	N
19.	Male	75	31	19	0	Regular Special	Not Available			
	Female	108	52	24	0					
	$\chi^2 = 0.181$		N/A							
20.	Male	80	26	19	0	Regular Special	80	26	109	51
	Female	109	51	24	0		19	0	24	0
	$\chi^2 = 1.335$		N/A		$\chi^2 = 4.489^*$		$\chi^2 = 9.052^*$			
21.	Male	39	67	16	3	Regular Special	39	67	65	95
	Female	65	95	22	2		16	3	22	2
	$\chi^2 = 0.249$		$\chi^2 = 0.775$		$\chi^2 = 12.841^*$		$\chi^2 = 19.813^*$			
22.	Male	62	44	10	9	Regular Special	62	44	78	82
	Female	78	82	17	7		10	9	17	7
	$\chi^2 = 2.052$		$\chi^2 = 0.826$		$\chi^2 = 0.501$		$\chi^2 = 3.239$			
23.	Male	81	25	14	5	Regular Special	81	25	101	59
	Female	101	59	19	5		14	5	19	5
	$\chi^2 = 4.615$		$\chi^2 = 0.350$		$\chi^2 = 0.122$		$\chi^2 = 1.713$			

TABLE 5 (continued)

Item Number	Sex	Class				Class	Sex			
		Regular		Special			Regular		Special	
		Y	N	Y	N		Y	N	Y	N
24.	Male	38	68	0	19	Regular	38	68	69	91
	Female	69	91	0	24	Special	0	19	0	24
	$\chi^2 = 1.119$				N/A	$\chi^2 = 8.165^*$				$\chi^2 = 14.771^*$
25.	Male	62	44	8	11	Regular	62	44	112	48
	Female	112	48	11	13	Special	8	11	11	13
	$\chi^2 = 3.242$				$\chi^2 = 0.419$	$\chi^2 = 1.154$				$\chi^2 = 4.463^*$
26.	Male	94	12	19	0	Regular	94	12	124	36
	Female	124	36	24	0	Special	19	0	24	0
	$\chi^2 = 4.659^*$				N/A	$\chi^2 = 1.254$				$\chi^2 = 5.359^*$
27.	Male	62	38	15	4	Regular	62	38	117	41
	Female	117	41	16	8	Special	15	4	16	8
	$\chi^2 = 3.638$				$\chi^2 = 0.302$	$\chi^2 = 1.334$				$\chi^2 = 0.263$
28.	Male	62	39	19	0	Regular	62	39	100	51
	Female	100	51	24	0	Special	19	0	24	0
	$\chi^2 = 0.424$				N/A	$\chi^2 = 9.180^*$				$\chi^2 = 9.863^*$

TABLE 5 (continued)

Item Number	Sex	Class				Class	Sex			
		Regular		Special			Regular		Special	
		Y	N	Y	N		Y	N	Y	N
29.	Male	49	49	0	19	Regular	49	49	73	81
	Female	73	81	0	24	Special	0	19	0	24
	$\chi^2 = 0.745$				N/A	$\chi^2 = 14.356^*$				$\chi^2 = 17.376^*$
30.	Male	74	32	17	2	Regular	74	32	106	54
	Female	106	54	24	0	Special	17	2	24	0
	$\chi^2 = 0.225$				$\chi^2 = 0.806$	$\chi^2 = 2.231$				$\chi^2 = 9.895^*$
31.	Male	28	76	10	9	Regular	28	76	64	96
	Female	64	96	16	8	Special	10	9	16	8
	$\chi^2 = 4.188^*$				$\chi^2 = 0.385$	$\chi^2 = 3.842$				$\chi^2 = 5.003^*$
32.	Male	26	79	5	13	Regular	26	79	61	97
	Female	61	97	5	19	Special	5	13	5	19
	$\chi^2 = 4.855^*$				$\chi^2 = 0.246$	$\chi^2 = 0.462$				$\chi^2 = 2.131$
33.	Male	91	15	19	0	Regular	91	15	133	27
	Female	133	27	22	2	Special	19	0	22	2
	$\chi^2 = 0.180$				$\chi^2 = 0.313$	$\chi^2 = 1.862$				$\chi^2 = 0.694$

TABLE 5 (continued)

Item Number	Sex	Class				Class	Sex			
		Regular		Special			Regular		Special	
		Y	N	Y	N		Y	N	Y	N
34.	Male	74	32	7	12	Regular	74	32	115	45
	Female	115	45	11	13	Special	7	12	11	13
		$\chi^2 = 0.507$		$\chi^2 = 0.079$		$\chi^2 = 6.301^*$		$\chi^2 = 5.406^*$		
35.	Male	72	34	10	9	Regular	72	34	107	47
	Female	107	47	20	4	Special	10	9	20	4
		$\chi^2 = 0.169$		$\chi^2 = 3.395$		$\chi^2 = 1.061$		$\chi^2 = 1.330$		
36.	Male	66	35	10	8	Regular	66	33	107	53
	Female	107	53	21	2	Special	10	8	21	2
		$\chi^2 = 0.144$		$\chi^2 = 5.193^*$		$\chi^2 = 0.281$		$\chi^2 = 4.606^*$		
37.	Male	81	25	12	7	Regular	81	25	121	31
	Female	121	31	18	6	Special	12	7	18	6
		$\chi^2 = 0.209$		$\chi^2 = 0.255$		$\chi^2 = 0.872$		$\chi^2 = 0.600$		
38.	Male	69	37	18	1	Regular	69	37	100	60
	Female	100	60	23	1	Special	18	1	23	1
		$\chi^2 = 0.902$		$\chi^2 = 0.313$		$\chi^2 = 5.363^*$		$\chi^2 = 9.013^*$		

TABLE 5 (continued)

Item Number	Sex	Class				Class	Sex			
		Regular		Special			Regular		Special	
		Y	N	Y	N		Y	N	Y	N
39.	Male	94	12	18	1	Regular	94	12	126	28
	Female	126	28	22	2	Special	18	1	22	2
		$\chi^2 =$	1.774	$\chi^2 =$	0.442		$\chi^2 =$	0.151	$\chi^2 =$	0.820
40.	Male	64	42	18	1	Regular	64	42	118	42
	Female	118	42	17	7	Special	18	1	17	7
		$\chi^2 =$	4.676*	$\chi^2 =$	2.578		$\chi^2 =$	6.975*	$\chi^2 =$	0.289

TABLE 6

CONTINGENCY COEFFICIENTS BETWEEN THE TWO INSTRUMENT FORMATS
ON THE 31 ITEMS FOR REGULAR AND SPECIAL CLASSES
SUBDIVIDED BY SEX

Item Number	Regular Class		Special Class	
	Males (N=106)	Females (N=160)	Males (N=19)	Females (N=24)
10.	.644*	.664*	.289	.331
11.	.659*	.686*	.382	.637*
12.	.617*	.582*	.581*	.622*
13.	N/A	N/A	N/A	N/A
14.	.592*	.609*	.610*	.649*
15.	.670*	.695*	.615*	.615*
16.	.625*	.665*	N/A	N/A
17.	.641*	.667*	N/A	N/A
18.	.688*	.649*	.477	N/A
19.	.462*	.463*	N/A	N/A
20.	.507*	.527*	N/A	N/A
21.	.517*	.469*	.447	.416
22.	.321*	.548*	.291	.381
23.	.623*	.635*	.641*	.648*
24.	.643*	.569*	N/A	N/A
25.	.573*	.621*	.622	.639*
26.	.541*	.576*	N/A	N/A
27.	.618*	.612*	.589*	.631*
28.	.629*	.542*	N/A	N/A
29.	.657*	.674*	N/A	N/A

TABLE 6 (continued)

Item Number	Regular Class		Special Class	
	Males (N=106)	Females (N=160)	Males (N=19)	Females (N=24)
30.	.501*	.518*	.579*	N/A
31.	.694*	.654*	.628*	.559*
32.	.584*	.614*	.545*	.540*
33.	.675*	.689*	N/A	.581*
34.	.618*	.625*	.520	.537*
35.	.598*	.630*	.539	.640*
36.	.654*	.622*	.389	.234
37.	.579*	.629*	.577*	.617*
38.	.480*	.565*	.477	.464
39.	.650*	.673*	N/A	N/A
40.	.646*	.625*	N/A	N/A
Total Sig.	39	39	10	13
Total N/A	1	1	12	13

APPENDIX C

CORRESPONDENCE RELATING TO STUDY

Oklahoma City Public Schools

900 North Main

Oklahoma City, Oklahoma 73105

October 27, 1977

Ms. Evangie H. McGlon
6104 Braniff Drive
Oklahoma City, Oklahoma
73105

Dear Ms. McGlon:

I am happy to inform you that your modified request to conduct a study in the Oklahoma City Public Schools has been approved. Members of your screening committee were: Mr. Jim Johnson, Dr. Alice Houston, and Mr. John Sadberry.

Please contact the principals of the following buildings to make further arrangements for your study:

Classen .
Grant
Marshall
Northeast
Southeast
Star Spencer
Capitol Hill
Douglass
Northwest
Central Innovative

If you have any further questions regarding this matter, please feel free to contact this office.

Sincerely,

Maxie Wood

Maxie R. Wood
Senior Research Associate

MRW/fkw

Putnam City Schools

DIRECTOR OF SECONDARY EDUCATION & PERSONNEL
5635 N. W. 39TH STREET
Oklahoma City, Oklahoma 73122

LEDERLE J. SCOTT, Ed.D.
ASSISTANT SUPERINTENDENT

405/789-1800

December 8, 1977

Mrs. Evangie McGlon
6104 Braniff Drive
Oklahoma City, Oklahoma 73105

Dear Mrs. McGlon:

Please find enclosed the final SPECIAL EDUCATION
QUESTIONNAIRES which have been completed in our
Putnam City Secondary Schools.

We are happy to have assisted you.

Sincerely,


Lederle Scott, Ed.D.
Assistant Superintendent

LS:mb