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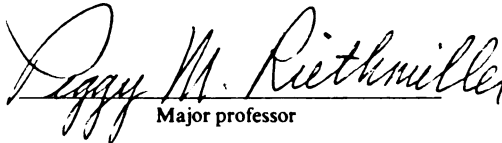
EDUCATION PROFESSORS' ATTITUDES AND ACTIONS TOWARD
THE CONCEPT OF MAINSTREAMING IN UNDERGRADUATE
TEACHER PREPARATION PROGRAMS

presented by

Suzana Amelia Jardini Sargent

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Curriculum and Instruction


Major professor

Date October 13, 1988

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EDUCATION PROFESSORS' ATTITUDES AND ACTIONS
TOWARD THE CONCEPT OF MAINSTREAMING
IN UNDERGRADUATE TEACHER
PREPARATION PROGRAMS

By

Suzana Amelia Jardini Sargent

A DISSERTATION

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ABSTRACT

EDUCATION PROFESSORS' ATTITUDES AND ACTIONS
TOWARD THE CONCEPT OF MAINSTREAMING
IN UNDERGRADUATE TEACHER
PREPARATION PROGRAMS

By

Suzana Amelia Jardini Sargent

Public Law 94-142 mandates free appropriate public education in the least restricted environment for all handicapped students. With the implementation of PL 94-142, it became clear that all regular education teachers need to be prepared to teach handicapped children.

Research has shown that in-service training programs do not prepare teachers who are in the field to deal with handicapped students. The responsibility of preparing teachers to work with mainstreamed students rests with the professors that are involved in the teacher preparation programs at pre-service levels.

In view of this, the purpose of this study was to determine the attitudes and actions of university professors toward the concept of mainstreaming when preparing students to be teachers in regular classrooms at the elementary or secondary levels.

A survey was developed for this study using a Likert-type scale. A content validity checklist was used to ensure the

validity of the instrument, and a test-retest technique was applied to verify the instrument's reliability in which the correlations between the two surveys taken by experts had r^2 values ranging from an average of 0.85 to 0.96.

A total of 150 teacher education professors were surveyed from three midwestern universities. The data were analyzed using percent distribution and linear regression.

The results showed that the majority of professors (93%) demonstrated a positive attitude toward the concept of mainstreaming. However, based on the results of the linear regression analyses, no correlations were found between selected regressions of attitudes vs actions.

When compared with attitudes, significantly fewer actions are being taken in order to convey the concept of mainstreaming to future teachers. Perhaps for mainstreaming to be a more successful and viable option for handicapped students, it would appear to be appropriate for higher education faculty to take significantly more actions .

To Steve,

my husband and best friend, who helped, supported and encouraged me throughout this whole Ph.D. program.

Trust in the Lord with all your heart
and lean not on your own understanding;
in all your ways acknowledge him,
and he will make your paths straight.

Proverbs 3:5,6

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CHAPTER I - INTRODUCTION

The concept of mainstreaming has received increased attention in the literature (Birch, 1974; Blankenship and Libby 1981; Reynolds and Birch, 1977; Dente, 1976; Trent, 1981). Mainstreaming is defined as placing the handicapped children in the least restrictive environment. According to Howe (1981) this has happened in part because of two pieces of Federal legislation which have had a major impact in the school system today. They are PL 94-142 and Section 504 of Rehabilitation Act of 1973. PL 94-142 mandates "Free Appropriate Public Education for all Handicapped Children in the Least Restricted Environment". Section 504 of Rehabilitation Act defines handicapped broadly and includes persons addicted to alcohol/drugs.

It is important to look at the concept of mainstreaming as "a related strategy that describes an educational alternative whereby some handicapped children participate in a program (classroom situation) with no handicapped children to the maximum extent possible", (Trent, 1981, p. 1). With this concept to be implemented, regular teachers need to receive specific training to better attend to this special population.

Various authors in the vast body of literature express concern about these regular teachers and their education to work with handicapped persons (Reynold and Birch, 1977; Birch, 1977; Kunzweiler, 1982). Even though much effort has been placed on in-service education, it is shown that the teachers still are not prepared to work with handicapped students (Hoellein, 1979).

To better implement this concept, objectives in the teachers preparation program need to be changed and programs need to be implemented in order to develop competent teachers to deal with this new role in mainstreaming (Dente, 1976).

To accomplish the goal of educating handicapped students in regular classrooms, regular teachers need to receive special education in this area during their undergraduate program. It is believed that at this level the professors can develop the structures and processes in all future teachers to improve the quality of education and the interaction which will occur between teachers and students, (Kunzweiler, 1982). Addressing the concern of training regular student teachers to mainstream handicapped students, this study examined professors' attitudes and actions toward the concept of mainstreaming.

Purpose of This Study

The purpose of this descriptive study was to examine the attitudes and actions of university professors toward the

concept of mainstreaming when preparing students to be teachers in regular classrooms at the elementary and secondary levels.

More specifically, the purpose of this study was to determine to what extent university professors appear to be acting to incorporate the concept of mainstreaming within their teacher preparation programs.

Need for This Study

PL 94-142, 1975, is the largest piece of legislation to act in favor of handicapped children. This law provides all handicapped children with "Free Appropriate Public Education" (Trent, 1981). The major components of PL 94-142 are:

- "1. Due process safeguards
2. Least restricted alternative
3. Nondiscriminatory testing
4. Individualized educational plan
5. Personal development
6. Zero reject development" (Trent, 1981, p. 39).

According to PL 94-142, all handicapped children should be placed in the least restricted environment, in other words, mainstreamed. Mainstreaming is "the placing of a handicapped child in a regular classroom for all or part of the day, while providing support services to the child or the teacher" (Croll and Shank, 1983, p. 3).

With the implementation of PL 94-142, it became clear that all regular education teachers need to be prepared to teach handicapped children. In a study by Rader (1979), 623

Michigan teachers responded to a questionnaire designed to determine what competencies teachers felt were important and their ability to perform them. From the results of this questionnaire, it was clear that teachers need more knowledge and training about handicapped students in their regular classrooms.

According to Hoellein (1979), "Regular classroom teachers have little, if any, pre-service training in working with handicapped students" (p. 2). Also, Hoellein argued that even though the regular classroom teachers believed that the handicapped students were better off in regular classrooms, they demonstrated a limited knowledge of how to work with those students and felt less competent to provide individualized instruction. Even after in-service education, the teachers did not feel competent to work with handicapped students.

According to the literature, in-service education does not appear to help teachers to reach desirable levels of competency to work with special students in the regular classroom. Research has shown that an in-service training program does not prepare the teachers who are in the field to deal with handicapped students (Hoellein, 1979).

Importance of This Study

Investigating professors' attitudes and actions toward the concept of mainstreaming would be an important step to

try to explore why regular teachers in the field do not feel capable of working with handicapped students (Marston and Leslie, 1983; Greener and Thurlow, 1982).

The universities and colleges that have the responsibility of training teachers at the undergraduate level should incorporate into their curriculum the mainstreaming concept so the future teachers can adequately attend to the needs of handicapped students. This responsibility lies with the university and/or college professors since they play a major role in teacher education. A professor's attitudes normally reflect his/her beliefs and can have a major impact on his/her actions.

According to Trent (1981) institutions of higher education need to restructure teacher preparation programs in order to prepare student teachers to attend the needs of all handicapped students in the mainstream, which is mandated by Federal and State legislation.

According to Croll and Shank (1983) the university is a source of knowledge and professional guidance, so it is a logical place to develop knowledge and experience for mainstreaming at both pre-service and in-service levels. To teach in this ideal situation, the college and university professors must be aware of this important concept of mainstreaming and incorporate it into their course content. Kunzweiler (1982) stated, "If we do not tear the walls down between training for our regular teachers and training for our special class

teachers at the university teacher training level and begin building those structures and process for all teachers, it is doubtful that the quality of the interaction between teacher and mainstreamed student will improve" (p. 258).

Dente (1976) supported this viewpoint saying that "Educators must stop being so regimented in their thinking and have much more communication of ideas between one another so that the concept of mainstreaming can be implemented" (p. 7).

Trent (1981) strongly suggested that further study be done to examine the attitudes of higher education faculty toward the concepts of mainstreaming.

Research Questions

The main goal of this study was to survey professors responsible for preparing elementary and secondary teachers who will be teaching in regular classrooms in order to measure: (1) the professors' reported attitudes toward the concept of mainstreaming; and (2) the kinds of reported actions these professors are taking to incorporate the concept of mainstreaming in the content of their courses. The following major questions guided this study.

- 1) What are the professors' reported attitudes, positive or negative, toward the concept of mainstreaming?
- 2) What are the professors' reported actions for implementation of the concept of mainstreaming

in the content of their courses?

- 3) Is there a relationship between professors' reported attitudes and actions toward the concept of mainstreaming?

Null Hypothesis

No significant differences in reported actions will be found between professors who reported negative attitudes toward the concept of mainstreaming and professors who reported positive attitudes toward the concept of mainstreaming.

Assumptions

For the purpose of this study, the researcher assumes that the subjects' responses to the questions will accurately reflect their true feelings toward the items presented.

Limitations

A few limitations will interfere with the ability to generalize the findings. Using a survey, rather than direct observation, to describe professors' reported attitudes and reported actions toward the concept of mainstreaming presented a limitation to this study. To transfer the results of this research to other U.S. universities would be possible, but not an easy task, since professors' opinions can differ from one person to another. Generalization to foreign educational systems would be difficult since the concept of mainstreaming has been developed and applied in the American educational system, and this concept is not well known in other countries.

However, the results of this study should be a good indicator of current trends toward the concept of mainstreaming in the higher educational systems of three midwest universities and how undergraduates in the teacher preparation programs are being prepared to meet the P.L. 94-142.

Definitions

Mainstreaming -

the practice of educational placement procedure and process for exceptional children based on the conviction that each child should be educated in the least restrictive environment in which his educational and related needs can be satisfactorily provided (Council for Exceptional Children, 1976, p. 43).

Least Restrictive Environment -

to the "maximum extent appropriate handicapped children are educated with children who are not handicapped, and that special classes, separate schooling, or other removal of handicapped children from the regular education environment occur only when the nature or severity of the handicapped is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily", (PL 94-142 cited by Hollein, 1979, p. 5).

**Special Needs
Student -**

a student who has mental, psychological, physical, or economic disadvantage that prevents him/her from succeeding in regular educational programs, (Hollein, 1979, p. 7).

Attitude -

an attitude is a mental and neural state of readiness, organized through experience exerting a direct or dynamic influence upon the individual's response to all objects and situation which it is related, (Allport, 1967, p. 8).

**Positive &
Negative
Attitude -**

a tendency to act toward or against some environmental factor which becomes thereby a positive or negative value (Borgadus, 1931).

**Attitude Toward
Mainstreaming -**

a manner in which an individual responds to the placement of a handicapped student in a regular classroom.

Action -

what an individual is doing to reach a particular goal.

Goal in This Study -

to prepare elementary and secondary teachers to work with mainstreamed students.

Action Toward
Instruction of
Mainstreaming -

is what the professors are doing to teach the concept of mainstreaming.

Preservice
Education -

refers to teacher preparation programs in the colleges and/or universities which prepare teachers to work with handicapped and non-handicapped children, (Trent, 1981).

In-service
Education -

refers to short courses and workshops available for regular education teachers and school personnel, who will work with handicapped students in the classroom and/or schools, (Trent, 1981).

Respondents -

The college and university professors which prepare elementary and secondary classroom teachers.

Handicap -

"Under PL 94-142, handicapped children are defined as those who, because of their impairments, need special education and related services. The federal categories of handicapping conditions are: mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, multi-handicapped, and learning disabled." (Lerner, 1981, p. 18).

Gifted -

"means children and, whenever possible, youth who are identified at the preschool, elementary or secondary level as possessing demonstrated or potential abilities that give evidence of high performance capabilities in areas such as intellectual, creative, specific academic, or leadership ability, or in the performing and visual arts, and who by reason thereof require services or activities not ordinarily provided by the school" (Hallahan and Kauffman, 1982, p.378, 379).

**Student
Teaching -**

a program in which students in education can better develop the appropriate knowledge, understandings, attitudes, skills, and behaviors through experiences occurring in full-time classroom situations (Anonymous, 1986).

**Behavior
Management -**

"control over the behavior of an individual or individuals for the purpose of achieving a desired outcome or producing a behavioral change various techniques are available to control or 'manage' an individual's behavior for different purposes." This can be used to shape desired actions and attitudes of others (Dynozka and Kapel, 1982, p. 59).

Overview

This research is organized into six chapters.

CHAPTER I contains the purpose and need for this study, the importance of the study, the research questions, the null hypothesis, assumptions, limitations and definitions.

CHAPTER II presents the precedents of the literature and the research precedents - Likert Scale.

CHAPTER III contains the methodology of the study comprised of a definition of the population and sample, instrumentation, procedures of validity concerns, pilot study and research procedures.

CHAPTER IV contains the presentation of the results and analysis of the data.

CHAPTER V presents the discussion of the results.

CHAPTER VI presents the conclusions, reflections and recommendations for further studies.

CHAPTER II - REVIEW OF RELATED LITERATURE

In discussing professors' attitudes and actions toward the concept of mainstreaming, in relation to teachers preparation, there are several areas which are important to examine:

- Definition of Mainstreaming
- Definitions of Attitudes
- Definition of Attitudes Toward Mainstreaming
- Handicapped Children and the Law:

PL 93 - 112 Section 504

PL 94 - 142

- Pros and Cons of Mainstreaming
- Attitudes Toward the Handicapped
- Teacher Preparation Programs
- Research Precedents - Likert Scale

Definition of Mainstreaming

Mainstreaming is a very important concept of concern to educators. The literature presents several different interpretations of the concept of mainstreaming.

Hollein (1979), stated that "mainstreaming is the conscientious effort to place handicapped children into least restrictive educational settings which are appropriate to their needs. The primary objective of this process is to

provide children with most appropriate and effective educational experiences which will enable them to become self-reliant adults. Within this objective, it is thought preferable to educate children the least distance away from the mainstream of society. Hence, there is a heavy emphasis on movement into the regular classroom whenever possible" (p. 6).

"An educational process of mainstreaming or returning exceptional persons who can best profit from such placement, to the regular education classroom, with any needed supportive services being provided in accordance with the nature of the placement (Commonwealth Definition, cited in Hoellein, 1979, p. 6).

Birch (1974) referred to a series of statements which were agreed by the majority of directors of special education in the United States. They were the following:

- "1. Mainstreaming refers to assigning handicapped pupils to regular classes and providing special education for them.
2. In mainstreaming, regular classroom teachers broaden and adapt instructional procedures and content so all children are incorporated into regular programs at levels manageable for each child and teacher.
3. Mainstreaming may be done at any level, preschool through secondary school.

4. In mainstreaming, the handicapped pupil reports to the regular classroom teacher.
5. In conventionally organized schools or in open space schools, the handicapped pupils being mainstreamed spend half or more of the day in regular classes.
6. In conventionally organized schools, the special education teacher has a headquarters room to which pupils can come for periods of time from the mainstream rooms to which they are assigned.
7. In open space schools the special education teacher may be a member of the team serving in the open space setting or may have a separate room as headquarters.
8. Mainstreaming handicapped pupils leave the main group only for essential small group or individual instruction, educational assessment, and pick up or deliver assignments prepared by the special education teacher.
9. The regular class teachers and special education teachers agree upon individual schedules and assignments as needed for children being mainstreamed.
10. Regular class teachers are responsible for grades and report cards for the mainstreamed

handicapped pupils, but they may consult with special education teachers on the grading.

11. Special education teachers help regular class teachers also by providing educational assessments and instructional consultation for regular class pupils who may not be eligible for special education in the usual sense.
12. Mainstreaming implies the following operating principle: Handicapped pupils usually begin their education in regular kindergarten or first grade groups with special education support, and they are removed to special classes or special schools only when the necessity to do so is shown and only for the periods required to prepare the pupils for returning to regular classes.
13. Criteria to select handicapped pupils for mainstreaming are in terms of matching pupil's educational needs and the capability of the mainstream program to meet those needs, rather than in terms of matching pupil's educational needs, and the capability of the mainstream program to meet those needs, rather than in terms of the severity of the pupil's physical, mental, emotional, or other handicap.

14. Mainstreaming has a place in the spectrum of plans for organizing instruction, space and facilities to accommodate the educational needs of handicapped pupils" (pp. 12, 13).

Reynolds and Birch (1982) gave the official definition of mainstreaming, according to the Council for Exceptional Children, (1976). "Mainstreaming is a belief which involves an educational placement procedure and process for exceptional children, based on the conviction that each such child should be educated in the least restricted environment in which his educational and related needs can be satisfactorily provided. This concept recognizes that exceptional children have a wide range of special educational needs varying greatly in intensity and duration; that there is a recognized continuum of educational settings which may at a given time, be appropriate for an individual child's needs; that to the maximum extent appropriate, exceptional children should be educated with nonexceptional children; and the special classes separate schooling, or other removal of an exceptional child from education with nonexceptional children should occur only when the intensity of the child's special education and related needs are such that they cannot be satisfied in an environment including nonexceptional children even with the provision of supplementary aids and services" (p. 5).

Kaufman, Gottlieb, Agard and Kukic (1975) defined mainstreaming as: "the temporal instructional, and social integration of eligible exceptional children with normal peers based on an on-going, individually-determined, educational planning and programming process and requires clarification of responsibility among regular and special education administrative, instructional, and supportive personnel" (p. 4).

Mainstreaming was defined by Clark (1975) as "an educational programming option for handicapped youth which provides support to the handicapped student and his teacher(s) while he pursues all or a majority of his education within a regular school program with nonhandicapped students - is a challenging and viable option of educational service delivery for same handicapped children and youth" (p. 1).

Blankenship and Lilly (1981) defined mainstreaming "as a part of least restrictive environment concept. It refers to the education of handicapped students in regular classrooms with assistance from special education resource teachers" (p. 5).

Croll and Shank (1983) defined mainstreaming as "the placing of a handicapped child in a regular classroom for all or part of a school day while providing support services to the child or his teacher" (p. 3).

The Council for Exceptional Children (1976) defined mainstreaming as "a belief which involves an educational

placement procedure and process for exceptional children, based on the conviction that each such child should be educated in the least restricted environment in which his educational and related needs can be satisfactorily provided" (p. 43).

The definition of mainstreaming given by the Council for Exceptional Children (1976) was selected for the purpose of this study.

Definitions of Attitudes

According to Allport (1967) "the concept of attitude is probably the most distinctive and indispensable concept in contemporary American social psychology" (p.3). The literature on attitudes is vast and there are a variety of definitions of attitudes.

Allport cited the following authors in his review of definitions of attitudes (1967, p. 7):

"An attitude is a tendency to act toward or against something in the environment which becomes thereby a positive or negative value" (Borgadus, 1931, p. 62).

"By attitude we understand a process of individual consciousness which determines real or possible activity of the individual counterpart of the social value, activity, in whatever form the bond is between them" (Thomas, Znaniecki, 1918, p.

27).

"An attitude is a mental disposition of the organism as a whole toward an object or situation which calls for adjustment" (Lundberg, 1929).

"Attitude of mind or feeling with regard to some matter" (Morris, 1978, p. 85).

Gordon Allport (1967) defined attitude. "An attitude is a mental and neutral state of readiness, organized through experience exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (p. 8).

According to Jacobson (1979), Allport's definition of attitude is widely accepted, even though there isn't a universal definition agreed upon. Allport (1967) defined attitude as positive and negative. "An attitude characteristically provides behavior that is acquisitive or avertive, favorable or unfavorable, affirmative or negative toward the object or class of objects with which it is related" (p. 8). In the same passage Allport cited Borgardus' definition in which the polarity in the direction of attitude was the central part of his definition. "An attitude is a tendency to act toward or against some environmental factor which becomes thereby a positive or negative value" (Borgardus, 1931, p. 62).

For the purpose of this study the following two definitions cited previously of attitudes, and attitudes positive and negative, were used.

Allport (1967): "An attitude is a mental and neural state of readiness, organized through experience exerting a direct or dynamic influence upon the individual's response to all objects and situations with which it is related" (p. 8).

Borgardus (1931): "An attitude is a tendency to act toward or against some environmental factor which becomes thereby a positive or negative value" (p. 62).

Definition of Attitudes Toward Mainstreaming

Attitude toward mainstreaming is a way in which an individual responds to the placement of a handicapped student in a regular classroom. Several studies concerned with the integration of handicapped students in the regular classroom have emerged in the literature lately. Trent (1981) argued that many handicapped children find "many more severe social challenges in regular classrooms than they ever did in self-contained classrooms" (p. 78).

Martin's study (1975) showed that the attitude of teachers and principals are unfavorable toward handicapped children when placing them in regular classrooms. There is a great number of studies in which the results showed a significant negative attitude from school personnel toward mainstreaming (Alper and Retish, 1972); Gickling and Theobald,

1975; Vaac and Kirst, 1977; Payne and Murray, 1974; Gueron and Szatlocky, 1974). The teachers' "lack of training" to deal with handicapped students is one of the biggest barriers toward mainstreaming (Alper and Retish, 1972; Stephens and Braun, 1980; Greene and Retish, 1973).

In this study, action toward the instruction of mainstreaming was defined as what the professors are doing to teach the concept of mainstreaming.

Handicapped Children and the Law

Education of handicapped children has made tremendous advances, from "total neglect, initially to isolated residential settings, then to self-contained classrooms in the public school, and finally into the mainstream of education and society" (Trent, 1981, p. 25). Three major events in education led to the mainstreaming movement (Corman and Gottlieb 1978, cited in Trent, 1981). The first was that minority groups established their civil rights. The second was the progress of general educators in the development of individualized curricula. The third were the "efficacy" studies in which they compared the academic and social progress of educable mentally retarded who attended classes with those who attended regular classes. The failure to demonstrate that special class placement was superior in terms of academic achievement, and the deteriorating effects of labeling led to the abolishment of the placement of mildly retarded in those

classes.

Those factors led to the passage of PL 94-142, the Education of All Handicapped Children Act. This legislation was passed by the United States Congress and signed into law by President Gerald Ford on November 29, 1975 (Ballard, 1977, p. 14). This law mandates that handicapped children "must be educated in the least restricted environment." "Least restricted environment" means that handicapped children must be educated in the most normal setting feasible, must be educated to the maximum extent appropriate, with nonhandicapped students, must be given access and opportunity to participate in nonacademic and extracurricular activities; and regular and special education program must be physically accessible to handicapped students" (Mittendorf, 1978, p. 4; cited in Lake, 1980). PL 94-142 has six major components:

1. Due Process Safeguards
2. Least Restrict Environment
3. Nondiscriminatory Texting
4. Individualized Educational Plan
5. Personnel Development
6. Zero Reject (Trent, 1981; Hasazi, 1979)

This law provides a detailed specification of practices for educating handicapped individuals, leading to a much more uniform and acceptable system. Also, there is federal commitment to increasing funds to develop and improve special education programs (Hasazi, et al., 1979). PL 94-142 applies

to all handicapped children, ages 3 to 21 years inclusive, who required special services by September 1, 1980 (Ballard, 1977).

PL 93-112, the Vocational Rehabilitation Act of 1973 Section 504, "has been referred to as the first federal civil law which protects the rights of disabled persons" (Jenkins and Odle, 1980; Ballard 1977; cited in Trent, 1981). Section 504 specifically prohibits discrimination to any handicapped individual, excluding his/her participation in any program, activity or denied any benefits receiving federal financial assistance solely by reason of his handicap (Ballard, 1977). Section 504 applies to all handicapped Americans independent of their ages. Section 504 also applies to all handicapped persons between the ages 3 and 21 with respect to free appropriate public education and related services such as transportation, speech pathology, recreation, counseling, physical therapy, etc., and also guarantees accessibility to regular programs. Close coordination has been maintained between PL 94-142 provisions and regulations and Section 504 regulations (Ballard, 1977).

According to Trent (1981), PL 93-112 became effective on June 1977 and affects 35 million individuals throughout the United States. An important part of this law is that all handicapped individuals are eligible to benefit from vocational rehabilitation including alcoholics and drug offenders.

Section 504 protects the rights of all handicapped persons, demands practices and attacks the injustices that have fallen upon the handicapped population to lead more "normal", productive and happy lives, despite their disabilities.

Pros and Cons of Mainstreaming

Mainstreaming is a belief which involves an educational placement procedure and process for exceptional children, based on the conviction that such children should be educated in the least restricted environment which is educational, and related needs can be satisfactorily provided (Council for Exceptional Children, 1976). In other words, mainstreaming is an educational placement of handicapped students in an environment that maximizes contact with no handicapped peers (Hasazi, et al., 1979). Like any educational reform or innovation, mainstreaming has its proponents and opponents.

The supporters of mainstreaming believe that the children achieve more socially and academically when they are not isolated (Jones, 1971; Hasazi et al., 1979; Birch, 1974; Budoff, 1974; Gottlieb, 1972).

The segregation of handicapped children results in their stigmatization and exclusion from opportunities to interact socially and academically with nonhandicapped peers. (Hasazi et al, 1979; Jones, 1971; Gottlieb 1974). Mainstreaming also helps to reduce the negative social consequences associated

with being labeled as handicapped. (Jones, 1971; Gottlieb, 1972; Gottlieb, 1974; Buldoff, 1974).

The major goal of public education is to promote the development of personal independence within the context of social interdependence and cooperation, this can help handicapped and nonhandicapped persons to develop a mutual understanding and respect to the broad range of individual differences (Hasazi et al, 1979; Trent, 1981).

Hasazi et al., (1979) argued that mainstreaming is not entirely based on social aspects. There is evidence that shows that mildly handicapped children progress as well or better in the regular classroom as they do in special classes. Possibly, the regular classroom provides greater motivation and opportunity to learn.

The classification and labeling of handicapped students up to this time have been less than accurate. Many of the tests used to place students in special education programs have been shown to be culturally biased and discriminatory against children from minority or socially or economically deprived backgrounds.

For mainstreaming to provide adequate learning opportunities for handicapped students, changes in assessment and evaluation procedures will be needed.

Opponents to mainstreaming bring up the question of the practicality of the approach. The critics of mainstreaming acknowledge the fact that the special education class has not

been academically successful, so the contention is whether mainstreaming has produced better results.

Critics of this approach have also raised questions such as:

-- "Will the regular education system with its increased demands for accountability and individualization be able to accommodate the needs of the handicapped?

-- How will regular classroom teachers receive the training to deal humanely and effectively with the problems of integrating students with a diversity of handicapping conditions?

-- Will the resources be available to provide trained specialists to assist classroom teachers?

-- Will principals and other administrators be able to generate positive support for mainstreaming from school boards and the community at large?" (Hasazi et al., 1979, p. 9).

The educator's main concern of mainstreaming "should be directed at understanding how the learning environment can best be arranged to promote the academic and social growth of the handicapped child". (Hasazi et al., 1979, p. 9).

Attitudes Toward the Handicapped

Attitudes toward handicapped individuals is a very complex issue (Kunzweiler, 1982). Because of Section 504 of the Rehabilitation Act and Public Law 94-142, changes in

special education requiring fast adjustment of students, parents, teachers, and administrators have been mandated, so attitudes toward children and youth with handicaps have assumed critical importance (Jones and Guskin, 1984 cited in Jones, 1984, Chapter 9). The teacher's attitude toward the handicapped will be a major factor on the success or failure of mainstreaming (Sesow and Adams, 1982; Kunzweiler, 1982).

The mainstreaming movement is an important step toward the integration of mentally retarded individuals into society. The community and parent groups attitudes have a major influence in the success of mainstreaming, especially in areas where there is community control of public school (Gottlieb and Corman, 1979). The Gottlieb and Corman study showed that the attitudes of parents and community is not all that positive toward the mentally retarded individuals, so emphasis on promoting positive attitudes, particularly acceptance in the community and the school, is critical.

Mainstreaming is affecting the attitudes of students toward themselves, each other, teachers, and other school personnel. The teacher's way of structuring this interaction between handicapped and nonhandicapped students can have a major impact on these attitudes (Johnson and Johnson, 1984, cited in Jones, 1984, Chapter 6).

Physical proximity is important, but it is not a sufficient condition to reduce the negative labeling and stereotyping, and to build a positive relationship and attitude between

handicapped and nonhandicapped peers (Johnson and Johnson, 1984, cited in Jones, 1984, Chapter 6). Johnson and Johnson (1984) explained that "to promote appropriate attitudes the mainstreaming classroom, the process of making social judgments about self and others must be used. That process consists of initial impression formation, placing labels on others and one's own characteristics and interaction within a context of positive, negative, or no interdependence." (p. 139).

According to Gottlieb, Corman, Curci (1984 cited in Jones, 1984, Chapter 7), the literature shows that mainstreaming retarded children in regular classrooms does not appear to promote more positive attitudes, in fact, the evidence supports that the opposite is true.

Learning disabled (LD) children have better acceptance than the children labeled "brain injury" or "retarded", but the LD label still conveys some negative stereotype (Abrams, Koders, 1979; cited in Jones, 1984, Chapter 8).

Birch (1974) found that regular teachers without mainstreaming experience were apprehensive about having handicapped children in their classrooms; this could indicate negative attitudes. Birch suggested that teachers need to greet the handicapped students with a positive attitude and in-service education is needed to "build-up teachers' confidence and competence in working with these children" (Jamieson, 1984 cited in Jones, 1984, p. 212, Chapter 11).

In general, teachers are not enthusiastic about working with handicapped students, and they are concerned about the practicality of mainstreaming (Jamieson, 1984).

The prejudice toward the handicapped exists; it cannot be ignored, and it must be dealt with (Martin, 1976, cited by Alexander and Strain, 1978). De Leo (1978) found that the director of special education, the special education teacher and the principal have more favorable attitudes toward integration of handicapped children into the regular classroom. The regular teacher maintains the least favorable attitude. Teachers need better understanding of integration of special education students into regular classrooms. Teacher attitude and expectation toward the handicapped student will heavily influence student productivity and progress in regular classrooms (Vacc and Kirsti, 1977; Thompson, 1968; Williams, 1976; Brophy and Good, 1970; Rosenthal, 1973; Doyle, Hancock, and Kifer, 1971; Khleif, 1976; Horne, 1979). The lack of support from regular teachers, toward mainstreaming is due to the fact that teachers have little or no course work in special education. Thompson (1968) and Glass and Meckler (1972, cited by Horne, 1979) reported that teachers attitudes change when provided with proper training. Their attitudes are more positive toward the handicapped student and also they prove themselves more capable to work with them. This perception is also supported

by Brooks and Bransford (1971), Harasymiw and Horn (1976), and Haring (1957, cited in Horne, 1979).

Teacher Preparation Programs

The task of preparing regular teachers to teach handicapped students is a very difficult task that has not been accomplished by the majority of teachers preparation programs (Trent 1981). According to Schenkat and Battaglim (1980), the teacher preparation program should emphasize the thinking process giving the students opportunities for problem solving, decision making and application. Also a good knowledge of curriculum is important. Schenkat and Battaglin (1980) believed that "teachers in training need a better way of tying together all they have learned and many appropriate experiences in using it in a decision-making fashion" (p. 15). The authors stress the importance of the improvement in the teacher's education at a pre-service level.

PL 94-142 has introduced a procedure to be adapted by schools which places handicapped students into regular classrooms (The Nebraska University, 1979). With this demand, the institution of higher education is facing a major challenge in the preparation of teachers and school administrators to ensure their ability to give the handicapped student an environment in which they will experience success.

The growing number of handicapped students in the regular classroom receiving individualized instruction will require

that the teachers be prepared to attend both academic and social needs of the handicapped student. "The pre-service teacher preparation program must mirror these values and develop these qualities in their graduates" (University of Nebraska, 1979, p. 36).

Reynolds (1982) explained that the schools of the nation have been loaded with after-school workshops to instruct teachers how to comply with PL 94-142, "as if the problem were simply fill out forms, to get parents' signatures, to satisfy the minimum procedural standards demands by government monitors, and 'stay out of jail'" (p. 5). But this mechanical procedure is not enough to meet the law.

Reynolds (1982) argued that the college and Universities have a particular obligation to seek new direction to meet the challenge of PL 94-142. PL 94-142 seeks "the re-examination of the purpose of education, the relations of school and families and values, and technical aspects of schooling" (p. 11). Consequently, teacher training should be guided to meet this greater role and organizational change required by the law.

The "foundations of education" which are sociology, physiology, measurement and similar areas are the ones that would be the most affected by the law, through major changes in their course contents.

Gilhood (1982) wrote that colleges and universities are the creators of the State-of-the-Art in teaching. The

Colleges of Education in the United States and public schooling are two distinct systems. The State delegates to the colleges the power to certify teachers as competent professionals. Education professors have a direct impact on education in the future which will be shaped by their actions or lack of actions. "The question is whether you choose to act upon those responsibilities or whether you choose to be acted upon" (p. 25).

Today, public emphasis has changed from how well the students are performing to how well the teachers are performing. Thinking about tomorrow's education, the best indicator is the preparation that future teachers are receiving today.

"Mainstreaming is another major concern of education students" (Calhoun, p. 178, 1986). Even though PL 94-142 is taught in most education courses, students do not have the opportunity to work personally with mainstreamed students. The future teachers are thus passive participants. Mainstreaming is one of the 10 items listed most often as causing anxiety among student teachers. "Hands-on" experience would be a very helpful way of coping with mainstreaming (Calhoun, 1986).

Allen and Turnbull (1984) stated that the "major components of teacher preparation programs are general education, subject matter specialization, professional education (generic and area-specific) and field experience" (p. 148). For the program outcome, the goal of the curriculum development

process should be synthesis and application of the knowledge (Allen and Turnbull, 1984).

According to Blair (1983), teachers have been concerned with the demands of PL 94-142. Many teachers have been assigned handicapped students in their regular classrooms, although not all of them had instruction which included PL 94-142. Topics of general descriptive nature received more attention, such as characteristics of the handicapped learner and the nature of mainstreaming.

Teachers who teach handicapped students need more specific instruction in their pre-service education as to means of developing appropriate learning activities for these individuals. The variety of handicapping conditions create tremendous needs among classroom teachers. "The challenge is overwhelming and it cannot be ignored" (Blair, 1983, p. 54).

Marston and Leslie (1983) demonstrated in their findings that teachers who had handicapped students in their elementary physical education classrooms demonstrated a more positive view of mainstreaming than the teachers who did not, but almost all teachers felt inadequately prepared for it.

Sattler and Graham (1983) argued that the special education content must be included within the pre-service curriculum in the elementary and secondary teacher preparation programs and appropriate in-service training must be available for faculty.

Blackhurst (1982) described thirteen areas of competencies that future teachers should acquire at universities or college levels. These areas are: nature of mainstreaming, nature of the handicap, attitudes, resources, teaching techniques, learning environment, learning styles, classroom management, curriculum, communication, assessing students' needs, evaluating student progress, and administration. An important point to stress is "if a teacher is responsive to individual differences and can teach, then mainstreaming will be successful" (p. 113).

Not only is teacher training a fundamental part of mainstreaming during the undergraduate preparation program, Faculty Renewal is also very important. Evans and Walker (1982) described a model for Faculty Renewal and Curriculum change. This model contains the following components: needs assessment, collaboration, staff-module development, dissemination and evaluation. This model not only would renew the faculty, but also would help on the curriculum change.

Jacobs (1980) suggested that special education personnel meet with student teachers and help them to have a supervised mainstreaming teaching experience.

Purgach (1981) argued that the regular classroom only will be able to address the handicapped needs with an adequate preparation for each dimension of the role. It is very important the teachers know about the fundamental intent of PL 94-142, the safeguards it includes for the handicapped, the

supportive services available, and have the preparation to work with other professionals, especially with the special education resource room teachers as an equal team. This more likely will result in an instructional program that coordinates the efforts between the two teachers instead of duplicating efforts and techniques. Most importantly, this would help the future teachers to define their personal values related to educating the handicapped prior to beginning their teaching careers.

Clark, Miller, and Quisenberry (1981) also stressed the need to train the regular educators at the pre-service level, in order to mainstream the handicapped student. As a result of this pre-service training, the regular teachers would be expected to have the following general skills at graduation:

- "1. Identification of the handicapped.
2. Referral of suspected handicapped students.
3. Procedures for transmitting data for consideration in both preliminary and case study evaluation.
4. Role of the regular educator in insuring that the rights of students and parents are protected under due process.
5. Analysis of information appropriate to the staffing of the handicapped student, and the development of appropriate goals and objectives.
6. Identification of options available in the placement of handicapped students to selection from methodologies and materials available in teaching the handicapped.
7. Selection from methodologies and materials available in teaching the handicapped.

8. Management of the behavior of students whose behavior may be deemed disruptive.
9. Evaluation of student progress" (p. 15).

The goal of pre-service training is to help the future teachers to better attend the handicapped students not to transform them into special education children, and also to provide the handicapped student with appropriate services that cannot be provided in the regular classroom.

Amerson, Kochur (1981) described ten broad categories that were developed to be integrated into the regular elementary core curricula:

- "1. Knowledge of basic provisions, rules, and regulations of P.L. 94-142 and other mandatory legislation affecting the handicapped including parental and children's rights.
2. Understanding of the academic and behavioral characteristics of handicapped pupils.
3. Awareness of the supportive resources and services within the school and community and how to use them.
4. Knowledge of assessment, evaluation, and reporting of progress of handicapped pupils.
5. Knowledge of the preparation and utilization of individualized educational programs (IEP's).
6. Knowledge of a wide variety of strategies for working with handicapped pupils in the curriculum, instructional, and behavioral management areas.
7. Understanding of the ability to work and communicate productively with the parents of the handicapped pupils.
8. Knowledge of the medications and side effects as found among exceptional pupils in the regular classroom.

9. Awareness and understanding of classroom attitudes and feelings and means to facilitate or modify them in positive directions. This would include:
 - Understanding of handicapped pupils' feelings and attitudes.
 - Understanding of regular students' feelings and attitudes toward handicapped pupils.
 - Understanding of self (teacher's) feelings and attitudes toward handicapped pupils.
10. Provision of field-based experiences allowing pre-service teachers first-hand experiences in school and community settings providing services to handicapped pupils" (pp. 34-35).

McCormick (1983) argues that secondary teachers need to be familiar with "characteristics, learning needs and means of accommodating the mainstreamed special learner in the normal classroom" (p. 45).

The law PL 94-142 contains serious professional demands, but also establishes specific social policies which can guide teacher's work and knowledge to which is relevant to teach. "The goals of Public Law 94-142 will be realized only if the quality of teacher preparation and professional service in the schools can be improved. High priority must be given to substantial if not massive upgrading and retooling of the programs that prepare teachers" (Reynolds et al., 1980, p. 5).

The implications of PL 94-142 call for all teachers (regular and special) to have skills which are related to the education of all students. Having these in mind, Lakin and Reynolds (1983) indentified ten clusters of skills, as follows:

- "1. The ability to select, develop, modify, and evaluate curriculum to ensure that students are engaged in activities and with materials that are appropriate to their skill level and life needs.
2. The ability to teach functional skills in the areas of literacy, life maintenance ("survival skills"), and personal/social development so that all students are moving toward functional maturity.
3. The ability to manage groups of students and individual students in the ways that permit high student engagement in school tasks, and encourage student self-management.
4. The ability to communicate effectively with other school personnel and educational consultants to improve the understanding of students and to increase instructional effectiveness .
5. The ability to work effectively and cooperatively with parents on matters related to students' academic and social development and to encourage the interest and involvement of parents in their children's education.
6. The ability to structure interactions among students which promote a sense of mutual responsibility, respect, and helpfulness and an appreciation for the rights and diversity of others.
7. The ability to structure classrooms to meet the needs of a range of students, making classroom accommodations that permit students with widely differing levels of attainment to work productively and cooperatively in the same classroom.
8. The ability to perform a major role in referral and child study processes (requiring knowledge of the roles and responsibilities of support staff), and the ability to collect objective data on student social and academic behavior and to accept shared responsibilities for each student.
9. The ability to prescribe individualized academic activities that are appropriate to each student's characteristics, to organize classroom instruction so that each student's

progress is monitored, and to develop a means of student assessment based on on-going classroom instruction.

10. The ability to perform according to the contemporary roles, responsibilities, and ethical commitments expected of teachers, and knowledge of the regulations and laws governing schools, pupil and parental rights, teacher self-protection, and intelligent professional behavior" (pp. 14-15). Others have cited and developed upon these clusters (Reynolds, 1980; Finkbeiner, 1980; Morsink, 1981; Hunter, Feb. 1980).

According to Lilly (1982) the professors need to prepare future teachers "to engage in differentiated instruction and to think about children as though their skills and abilities and how they approach their school work constitute continua, and not only to expect to see children on this continuum but, also, to be able to deal with them effectively" (p. 59). Future teachers also need to learn about referral procedures, how they are used and the state regulations governing special education, knowing what the state requires, the services can be delivered much more quickly and efficiently.

Lilly emphasized three areas in which prospective teachers need to develop skills. They are direct assessment, direct instruction and "prosthetic" approaches to teaching. Attitude is a very important area "because teacher education is above all a socializing process" (p. 62). Peterson (1983) wrote that "The final test of mainstreaming rests with the ability and attitude of the teachers and others who implement the programs; it is they who must translate theory into

practice" (p. 25).

Kopit (1982) developed a six-team restructuring curriculum and instruction to accommodate mainstreaming studies. These teams include curriculum and instruction, math and science content, field and practicum studies, reading and social studies, early childhood, and educational foundation. Each team was composed of 3 faculty members, 2 in their respective areas and 1 in special education.

The Curriculum and Instruction team formulated the following objectives:

- Identifying Special Education components
- Revising Curriculum and Instruction Outlines
- Locating Instructional Materials
- Modifying Instructional Procedures
- Implementing Revised Course Outlines

These efforts were very successful and students demonstrated that their concerns and fears about mainstreaming were alleviated as a result of this experience.

Roberts (1982) suggested that the simplest way to prepare future teachers for mainstreaming is to incorporate a relevant course in their curriculum. This course would include different areas of exceptionality as well as about child learning problems, such as how to identify them, how to teach the children despite their learning deficits and how to remediate their learning problems while teaching them academics through different learning styles and modalities. The

field experience would be beneficial in which the prospective teachers could work with special education students to apply the knowledge gained through coursework.

According to Cegelka (1987), the Dean's Grants has been richly funding the Pre-service Preparation of regular educators to work with handicapped students for a period of years.

Hoover (1984) studied types of requirements used to prepare elementary pre-service regular teachers for education of the handicapped; he demonstrated in his research that 95% of the schools surveyed either had a requirement or planning to implement requirements for preparing prospective teachers for mainstreaming. Also, most of the schools require one or two courses in special education. "Infusion of information into required education classes was also a widely used form of intervention" (p.6). Most of the schools do not require experience with exceptional students in educational settings.

The American Association of Colleges for Teacher Education (AACTE, 1982) developed a publication to guide teacher education institutions as they examine their programs in the light of the National Council for Accreditation of Teacher Education (NCATE) Standards as relates to the education of exceptional children. Following are the clusters of capabilities that should guide the preparation of educators.

"I. Curriculum

general knowledge, K-12 curricula;
understanding of curriculum principles, structures;
understanding of the relationship to child development and schools as social institutions.

II. Teaching Basic Skills

- a. literacy skills: reading, writing, spelling, arithmetic, study, speaking;
- b. life maintenance skills: health, safety, consumerism, law;
- c. personal development skills: goal setting, decision making, problem solving, career development, recreation.

III. Class Management

skills to include:
applied behavior analysis, group alerting, guiding transitions, materials arrangement, crisis intervention techniques, and creating a positive affective climate.

IV. Professional Consultation and Communications

knowledge and practical skills required for effective consultation

and other professional communication;
ability to negotiate objectively and equably.

V. Teacher-Parent-Student Relationships

skilled in dealing with parents, students, and siblings of handicapped students;
understanding of "disenfranchised families" and their needs.

VI. Student-Student Relationships

ability to manage the social structure of mainstream classes by generating cooperative, helpful behavior;
skilled in developing heterogeneously cooperative grouping and peer and cross-age tutoring.

VII. Exceptional Conditions

rudimentary understanding of exceptional children, their special needs, and how to accommodate those needs;
knowledge of specialists and resources available to assist with special educational needs.

VIII. Referral

skilled in systematic observations and data collection for referral process

knowledge of referral procedures, the responsibilities involved, and ways to capitalize on referral resources.

IX. Individualized Teaching

demonstrated competence in assessing individual educational needs and in adapting instruction to the individual progress toward objectives;

skilled in keeping records of individual progress toward objectives;

knowledgeable about diverse models for individualized instruction.

X. Professional Values

values which give primary attention to individual students, their needs and rights guided by ethical codes regarding their responsibilities to individual pupils; knowledge of the law and its implications, including due process."

(Appendix B, p. 38-39.)

Lyon and Ognibene (1982) described an approach used to train teachers to work with handicapped students. This approach consisted of lecture and discussion with visual aids, audience participation and hand outs. The emphasis of the course content was on the practical, comprehensive and realistic. Besides dealing with the educational needs of the handicapped, a panel presentation by parents of handicapped students helps in clarifying doubts. Also a panel of handicapped adults was brought in. This program intends to produce a "living laboratory" helping teachers to have a practical and real experience. Hartle (1982) also described the standards developed by the National Association of State Directors of Teacher Education and certification adapted by a number of states.

Aksamit et al. (1981) in this article identified 10 content areas of mainstream curriculum. The areas were:

- "1. awareness and attitude
2. historical, philosophical and social perspectives
3. litigation and legislation
4. service delivery systems and program approaches
5. characteristics of children with handicapped conditions
6. communication skills, role relationships and coordination of resources
7. assessment in the classroom
8. adaptation of curriculum and selection of instructional strategies

9. classroom and student behavior management, and
10. development and implementation of the Individualized Education Program (IEP)" (p. 4).

Turner and others (1981) described three competencies that should be added to all preservice programs for teachers and administrators:

- " 1. development of positive attitudes toward students with special needs,
2. acquisition of knowledge about the law and learning needs of handicapped students, and
3. development of skills needed to direct or implement programs to meet these special needs" (p. 86-87).

Redden and Blackhurst (1980) indentified 6 functions and 32 competencies from a survey of 184 regular elementary classroom teachers as necessary to mainstream handicapped children effectively. A complete list of competencies is available in Redden (1976).

The functions are the following:

1. Develop Orientation Strategy for mainstream entry.
2. Assess needs and set goals.
3. Plan teaching strategies and use of resources.
4. Implement teaching strategies and use resources.
5. Facilitate learning.
6. Evaluate learning.

Several of these competencies are also described in other studies, such as Reynolds (1980), Lakin and Reynolds (1983), Morsink (1981), and Finkbeiner (1980).

Kunzweiler (1982) suggested that the teacher training institutions could prepare their student teachers to have the individualized curriculum-instructional approach in their repertoire so they can be flexible and able to change their techniques as the environment changes. The professors responsible for teacher preparation could develop techniques to stimulate growth-developing experiences for teachers - emotionally, spiritually and intellectually. In sum, Kunzweiler suggested that "we could change our teacher training methods to produce flexible Jacks of all trades - Masters of all" (p.286).

Research Precedents - Likert Scale

The Likert Scale (Likert, 1932) "consists of a series of statements all of which are related to a person's attitude toward a simple object" (Hursen and Postlethwaite, 1985, p. 3082 Vol. V). Two types of statements appear on this scale. The first one is the endorsement of the statement that indicates a positive attitude toward the object of interest. The second one is the endorsement of the statement that indicates a negative or unfavorable attitude toward the object of interest.

"An approximately equal number of favorable and unfavorable statements are typically included on a Likert Scale" (Husen and Postlethwaite, 1985, Vol. V, p. 3082). The responses vary from Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. Also a numerical value is given to each response option. To construct statements for the Likert Scale is not a easy task (Schilling, 1980).

But several are the advantages of the Likert Scale: "adaptibility to a wide variety of attitudes, objects, situations and settings, and ability to assess both a direction and intensity of attitude. The major disadvantage is that different response patterns can produce the same total score" (Husen and Postlethwaite, 1985, p. 3084, Vol. V).

The designers of the Likert Scale are encouraged to rewrite more statements than what are necessary, since the responses to each statement are significantly correlated with the sum of total responses to the entire set of statements. If the statements do not have this characteristic it has to be eliminated from the final form of the scale (Husen and Postlethwaite, 1985).

Having presented a review of related literature and research precedents in this chapter, the methodology is outlined and described in the following Chapter III.

CHAPTER III - DESCRIPTION OF METHODOLOGY

This section contains the methodology used in conducting the study. The research population is defined and identified. The data gathering procedure is outlined, the development of the research instrument is presented and its administration explained, and the data analysis is delineated.

Population and Sample

A letter was sent to each chairperson of the Departments of Education at the three universities selected for this study. The universities were Indiana University, the University of Illinois, and the University of Iowa. In this letter the researcher asked for a list of all the professors involved in the undergraduate teacher preparation program. Prior to mailing the survey to the professors, an updated version of the list was received from each department chairperson. The population sample used for this study was all the full, associate and assistant professors and instructors from the three Midwest universities.

At the time of the survey (Fall, 1987), Indiana University had a total of 62 professors and instructors, the University of Illinois had a total of 39, and the University

of Iowa had a total of 49. From these universities there was a total sample population of 150. The survey was sent to all the professors and instructors at these three universities. A total of 109 surveys were returned, of which 87 qualified for use in the analysis.

Instrumentation

The instrument used in this study, a survey, was developed by the researcher to collect the data and was derived from the literature. There are three principal instruments in the literature which were concerned with mainstreaming in relation to this study: Dente, 1976 (University of Cincinnati); Schilling, 1980 (University of Oregon); and Trent, 1981 (Ohio State University). These instruments provided the basis from which this current instrument was developed.

The instrument developed for this study consisted of two parts. The first part (Statements 1-24) related to professors' attitudes toward the concept of mainstreaming and used a Likert-type scale for responses. This scale ranged from Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). The second part had 14 open-ended questions (Question 25-38) about professors' actions toward the concept of mainstreaming in relation to teacher preparation programs. The survey underwent several revisions after the initial version. The revisions were done

with the help of the professors of the researcher's dissertation committee.

The survey instrument is included in Appendix A.

Content Validity Checklist

The Content Validity Checklist was developed to assure that the content of the survey would yield valid results using experts' opinions to validate the instrument. After the experts' opinions were received, minor changes were incorporated into the instrument achieving the content validity desired to proceed with the study.

A total of five professors were selected from the Department of Special Education at Michigan State University. The five professors selected were each from different areas of Special Education which were Sensory Impaired Deaf and/or Blind, Mentally Impaired, Emotionally Impaired, Physically Impaired, and Learning Disabled.

The Content Validity Checklist was divided into three parts. Part 1 had 23 questions from the survey which dealt with professors attitudes toward the concept of "mainstreaming". Two questions asked were, "Is the question easy to understand?", and "Does the question apply to the definition of attitude?" Part 2 had four questions from the survey which dealt with professors' actions toward the instruction of mainstreaming. Two questions were asked which were "Is the question easy to understand?", and "Does

the question apply to the definition of action?" Part 3 had four questions which were concerned with the respective departments' actions toward the concept of mainstreaming. One question was asked to the experts which was, "Is the question easy to understand?"

The experts went through the Content Validity Checklist and advised of minor changes which were incorporated into the final survey instrument. The cover letter and Content Validity Checklist are included (Appendices B and C).

Pilot Study

The reliability of the instrument was determined by the test-retest technique. The final instrument was composed of 24 statements about attitude and 14 questions about actions. A total of five professors were selected from the Department of Teacher Education at Michigan State University to participate in the Pilot Study. One of the five professors invited to participate in the pilot study could not complete the survey since he was not currently involved in the undergraduate teacher preparation program. The instrument was given to the professors with a week interval between the test and retest. Identical copies of the instrument were used for the test-retest.

Linear Regression was used to test the reliability of the instrument. The tests and retests were analyzed for each of the professors, attitude vs. attitude and action vs.

action. According to Gay (1981), the standards for an acceptable test of reliability are 0.90+ are very good, 0.80+ are good, and the minimally acceptable is 0.70+. The results are presented below, in which the coefficient of determination, or the r squared value, indicates the reliability of the survey instrument.

<u>Expert</u>	<u>r^2 for Attitudes</u>	<u>r^2 for Actions</u>	<u>Mean r^2</u>
1	0.77	0.94	0.85
2	0.94	0.99	0.96
3	0.80	0.89	0.85
4	0.93	0.93	0.93

More variability between values in attitudes was seen than in the values in actions. This might indicate that the respondents can change their opinion more frequently than change their actions.

The results compiled from this pilot study show that the instrument has a very high reliability, with a range in average r squared values of 0.85 to 0.96.

Data Collection

A total of 150 professors and instructors was surveyed from the three universities which corresponded to 62 from Indiana University, 39 from the University of Illinois, and 49 from the University of Iowa. A cover letter and survey was sent to each subject explaining the purpose of this study and asking for a prompt response (Appendix D). To those professors who didn't respond, a second copy of the survey was sent with a new cover letter (Appendix E).

In this chapter the population and sample were described, the survey instrument was presented, the Content Validity Checklist was outlined and the data collection was described. Results from the returned surveys were collated and are presented in Chapter IV.

CHAPTER IV - PRESENTATION OF THE RESULTS AND ANALYSIS

The purpose of this descriptive study was to determine the attitudes and actions of university professors toward the concept of mainstreaming when preparing students to be teachers in regular education. This study attempted to answer three major questions:

- 1) What are the professors' reported attitudes, positive or negative, toward the concept of mainstreaming?
- 2) What are the professors' reported actions for implementation of the concept of mainstreaming in the content of their courses?
- 3) Is there a relationship between professors' reported attitudes and actions toward the concept of mainstreaming?

Null Hypothesis

No significant differences in reported actions will be found between professors who reported negative attitudes toward the concept of mainstreaming and professors who reported positive attitudes toward the concept of mainstreaming.

Population Background Results

The three universities involved in this study run in the semester system which consists of 16 weeks of classes. A wide range of "Years of Experience" from the respondents was seen. These data are presented in Table 1 and Figure 1.

Table 1. Years of teaching experience for all respondents of the survey.

<u>Years Experience</u>	<u>Number of Respondents</u>	<u>Percentage</u>
1-5	12	13.8
6-10	9	10.3
11-15	14	16.1
16-20	14	16.1
21-25	19	21.8
26-30	8	9.2
31-35	4	4.6
36-40	1	1.1
41-45	0	0.0
No response	6	6.9

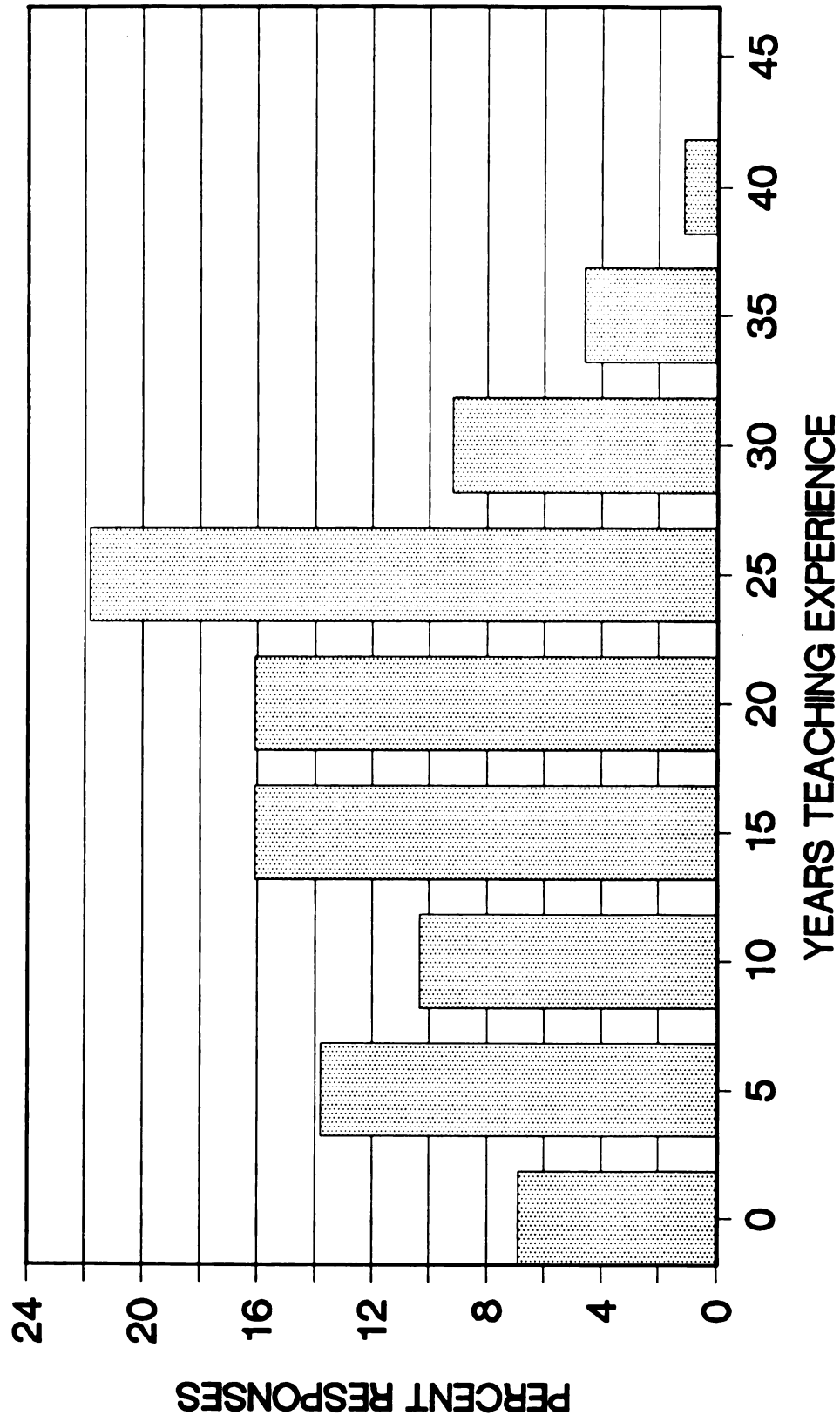


Figure 1. Number of years of teaching experience for all respondents.

Survey Results

The survey was mailed to a total of 150 professors and instructors from three large Midwest universities. From 150 surveys sent, a total of 109 was returned, indicating a yield of 72.6% of the total; 62 surveys were sent to Indiana University and 39 were returned (62.9%); 39 surveys were sent to the University of Illinois and 28 were returned (71.7%); and 49 surveys were sent to Iowa University and 42 were returned (85.7%). The percents presented here are based on the total surveys sent to each University and returns from each one.

From 109 total returns, 16 were not qualified to answer the survey, since they were not directly involved in the undergraduate teacher preparation program, and six more were returned in which the professors did not want to answer the survey. Therefore, a total of 87 returns were used as a combined sample for the analysis of the survey data.

The survey was composed of 38 questions; Statements 1-24 refer to professors' attitudes toward the concept of mainstreaming and Questions 25 to 38 refer to their actions.

The survey responses were also analyzed by percent to determine if significant differences existed between the three universities. The surveys for respondents for each university were individually compared by calculating an average percent for each question to reflect positive,

neutral and negative attitudes and responses regarding actions.

A survey summary was composed by totaling the number of responses for each statement (Table 2). These answers were also transformed into percent (Table 3). These data are graphically presented in Appendix Figures 3 A-F.

Survey responses for each statement were then transposed from the original Likert Scale to determine professors' actual attitudes toward the concept of mainstreaming using a scale from 1 to 5, with 5 being most positive and 1 being most negative (Table 4). These attitudes were also summarized by percent (Table 5). These data are graphically presented in Appendix Figures 4 A-D.

The data collected from Questions 25 to 38 were analyzed using percent and regression analysis. "Regression analysis refers to the extent to which we can predict the value of one variable given a related value of a second variable" (Terrace and Parker, p. 8-1, 1971). In this study attitudes were regressed against actions.

Table 2. Distribution of respondents' answers to the survey according to the Likert Scale.

Key Words From Each Question	RESPONSE DISTRIBUTION (#)					
	NA	SA	A	N	D	SD*
1. Taught to all	1	47	37	2	0	0
2. Educated in spec. classroom	5	0	6	12	45	19
3. Benefit academically and/or socially	3	32	43	7	2	0
4. Benefit socially	1	30	47	6	2	1
5. Enough in-service education	4	0	3	11	46	23
6. Districts have specialists	2	0	0	6	48	31
7. Required to teach handi-capped	1	3	37	7	37	2
8. Interest in learning	1	5	40	26	15	0
9. Teaching experience with handicapped	0	14	56	8	8	1
10. Causes of handicaps	1	15	54	13	4	0
11. Behavior Management	0	19	57	7	4	0
12. Teaching Techniques	1	26	56	2	2	0
13. Adapted media and materials	2	17	52	12	4	0
14. Well equipped	4	0	20	24	32	7
15. Work only with normal students	1	0	1	4	41	40
16. PL 94-142, demands too much	1	4	19	19	39	5
17. Aware teach gifted children	1	3	55	12	15	1
18. Knowledge, causes, behavior gifted	1	13	61	9	1	2
19. Teaching experience gifted	0	5	42	21	16	3
20. American educational system change gifted	2	8	44	22	9	2

Table 2 (cont.).

Key Words From Each Question	RESPONSE DISTRIBUTION (#)					SD*
	NA	SA	A	N	D	
21. American educational system change handicapped	1	13	50	16	7	0
22. Have or have had handicapped		(78 = yes) (9 = no)				
23. Comfortable handicapped	0	18	53	7	2	0
		(7 = not applicable)				
24. Relate comfortably handicapped outside	1	12	60	10	4	0

*NA = No Answer
 SA = Strongly Agree
 A = Agree
 N = Neutral
 D = Disagree
 SD = Strongly Disagree

Table 3. Distribution of respondents' answers to the survey by percent.

Key words from each question	NA	RESPONSE DISTRIBUTION (%)				SD*
		SA	A	N	D	
1. Taught to all	1.1	54.0	42.5	2.3	0.0	0.0
2. Educated in spec. classroom	5.7	0.0	6.9	13.8	51.7	21.8
3. Benefit academically and/or socially	3.4	36.8	49.5	8.0	2.3	0.0
4. Benefit socially	1.1	34.5	54.0	6.9	2.3	1.1
5. Enough in-service education	4.6	0.0	3.4	12.6	52.9	26.4
6. Districts have specialists	2.3	0.0	0.0	6.9	55.2	35.6
7. Required to teach handicapped	1.1	3.4	42.5	8.0	42.5	2.3
8. Interest in learning	1.1	5.7	46.0	29.9	17.2	0.0
9. Teaching experience with handicapped	0.0	16.1	64.4	9.2	9.2	1.1
10. Causes of handicaps	1.1	17.2	62.1	14.9	4.6	0.0
11. Behavior Management	0.0	21.8	65.5	8.0	4.6	0.0
12. Teaching Techniques	1.1	29.9	64.4	2.3	2.3	0.0
13. Adapted media and materials	2.3	19.5	59.8	13.8	4.6	0.0
14. Well equipped	4.6	0.0	23.0	27.6	36.8	8.0
15. Work only with normal students	1.1	0.0	1.1	4.6	47.1	46.0
16. PL 94-142, demands too much	1.1	4.6	21.8	21.8	44.8	5.7
17. Aware teach gifted children	1.1	3.4	63.2	13.8	17.2	1.1
18. Knowledge, causes, behavior gifted	1.1	14.9	70.1	10.3	1.1	2.3
19. Teaching experience gifted	0.0	5.7	48.3	24.1	18.4	3.4
20. American educational system change gifted	2.3	9.2	50.6	25.3	10.3	2.3

Table 3 (cont.).

Key words from each question	NA	RESPONSE DISTRIBUTION (%)				SD*
		SA	A	N	D	
21. American educational system change handicapped	1.1	14.9	57.7	18.4	8.0	0.0
22. Have or have had handicapped	(89.7 = yes)		(10.3 = no)			
23. Comfortable handicapped	0.0	20.7	60.9	8.0	2.3	0.0
	(8.0 = Not Applicable)					
24. Relate comfortably handicapped outside	1.1	13.8	69.0	11.5	4.6	0.0

*NA = No Answer
 SA = Strongly Agree
 A = Agree
 N = Neutral
 D = Disagree
 SD = Strongly Disagree

Table 4. Distribution of Likert Scale transposed to positive, negative and neutral attitudes.

Question #	POSITIVE ATTITUDE		NEUTRAL	NEGATIVE ATTITUDE	
1	SA 5	A 4	N 3	D 2	SD* 1
2	SD 5	D 4	N 3	A 2	SA 1
3	SA 5	A 4	N 3	D 2	SD 1
4	SA 5	A 4	N 3	D 2	SD 1
5	SD 5	D 4	N 3	A 2	SA 1
6	SD 5	D 4	N 3	A 2	SA 1
7	SA 5	A 4	N 3	D 2	SD 1
8	SA 5	A 4	N 3	D 2	SD 1
9	SA 5	A 4	N 3	D 2	SD 1
10	SA 5	A 4	N 3	D 2	SD 1
11	SA 5	A 4	N 3	D 2	SD 1
12	SA 5	A 4	N 3	D 2	SD 1
13	SA 5	A 4	N 3	D 2	SD 1
14	SA 5	A 4	N 3	D 2	SD 1

Table 4 (cont.).

Question #	POSITIVE ATTITUDE		NEUTRAL	NEGATIVE ATTITUDE	
15	SD 5	D 4	N 3	A 2	SA 1
16	SD 5	D 4	N 3	A 2	SA 1
17	SA 5	A 4	N 3	D 2	SD 1
18	SA 5	A 4	N 3	D 2	SD 1
19	SA 5	A 4	N 3	D 2	SD 1
20	SA 5	A 4	N 3	D 2	SD 1
22	(yes)		(no)	(no answers)	
23	SA 5	A 4	N 3	D 2	SD 1
24	SA 5	A 4	N 3	D 2	SD 1

*NA = No Answer
 SA = Strongly Agree
 A = Agree
 N = Neutral
 D = Disagree
 SD = Strongly Disagree

Table 5. Distribution of respondents' attitudes toward the concept of mainstreaming.

Key words from each question	PERCENT		
	Positive Att.	Negative Att.	No Opin.
1. Taught to all	96.6	0.0	3.4
2. Educated in spec. classroom	73.6	6.9	19.5
3. Benefit academically and/or socially	86.2	2.3	11.5
4. Benefit socially	88.5	3.4	8.0
5. Enough in-service education	79.3	3.4	17.2
6. Districts have specialists	90.8	0.0	9.2
7. Required to teach handicapped	46.0	44.8	9.2
8. Interest in learning	51.7	17.2	31.0
9. Teaching experience with handicapped	80.0	10.3	9.2
10. Causes of handicaps	79.3	4.6	16.1
11. Behavior Management	87.4	4.6	8.0
12. Teaching Techniques	94.3	2.3	3.4
13. Adapted media and materials	79.3	4.6	16.1
14. Well equipped	22.9	44.8	32.2
15. Work only with normal students	93.1	1.1	5.7
16. PL 94-142, demands too much	50.5	26.4	23.0
17. Aware teach gifted children	66.6	18.4	14.9
18. Knowledge, causes, behavior management gifted	85.0	3.4	11.5
19. Teaching experience gifted	54.0	21.8	24.1
20. American educational system change gifted	59.7	12.6	27.6

Table 5 (cont.).

Key words from each question	PERCENT		
	Positive Att.	Negative Att.	No Opin.
21. American educational system change handicapped	72.4	8.0	19.5
22. Have or have had handicapped	(89.6 yes)	(10.3 no)	
23. Comfortable handicapped	81.6	2.3	8.0
24. Relate comfortably handicapped outside	81.6	4.6	11.5

Results of Reported Attitudes Toward Mainstreaming

The 24 statements about professors' attitudes toward the concept of mainstreaming attempted to answer the following question:

"What are the professors' reported attitudes, positive or negative, toward the concept of mainstreaming?"

As previously explained, the individual percents for each response (from Strongly Agree to Strongly Disagree) were determined from the total number of responses and "No Answer" for each statement. These Likert Scale responses were then grouped in order to calculate percent attitude, "Positive" and "Negative". "No Opinion" was comprised of "Neutral" plus "No Answer" for each question. Data from Tables 2, 3 and 5 were collated into Table 6, which will be the basis for presentation of the results of the attitudes.

Statement 1. Of the respondents, 54.0% strongly agreed and 42.5% agreed that mainstreaming should be taught to all future teachers, which showed a Positive Attitude of 96.6% (Table 6). Only 3.4% had No Opinion and no one disagreed.

Statement 2. The Positive Attitude of 73.6% was composed of 21.8% strongly disagreeing and 51.7% disagreeing with the notion that handicapped children should be educated in special classrooms, and 19.5% had no opinion.

15

1

15

5

15

3

Table 6. Survey summary of total responses by number and percent for Likert Scale, and percent of total responses for Positive Attitude, Negative Attitude, and No Opinion.

SA=Strongly Agree; A=Agree; N=Neutral; D=Disagree;
SD=Strongly Disagree; NA=No Answer.

1. Mainstreaming is a concept that should be taught to all future elementary and secondary teachers at the undergraduate level.

NA	SA	A	N	D	SD
1	47	37	2	0	0
1.1%	54.0%	42.5%	2.3%	0.0%	0.0%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
96.6%		0.0%		3.4%	

2. Handicapped children should be educated in special classrooms separate from regular students.

NA	SA	A	N	D	SD
5	0	6	12	45	19
5.7%	0.0%	6.9%	13.8%	51.7%	21.8%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
73.6%		6.9%		19.5%	

3. Handicapped students benefit academically and/or socially from mainstreaming.

NA	SA	A	N	D	SD
3	32	43	7	2	0
3.4%	36.8%	49.4%	8.0%	2.3%	0.0%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
86.2%		2.3%		11.5%	

Table 6 (cont.)

4. Non-handicapped students benefit socially from mainstreaming.

NA	SA	A	N	D	SD
1	30	47	6	2	1
1.1%	34.5%	54.0%	6.9%	2.3%	1.1%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
88.5%		3.4%		8.0%	

5. School districts offer enough in-service education to help regular teachers to work adequately with handicapped students, mainstreamed in their regular classrooms.

NA	SA	A	N	D	SD
4	0	3	11	46	23
4.6%	0.0%	3.4%	12.6%	52.9%	26.4%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
79.3%		3.4%		17.2%	

6. Undergraduates studying to be regular teachers do not need special training to work with handicapped students, since school districts have specialists in Special Education available for consultation.

NA	SA	A	N	D	SD
2	0	0	6	48	31
2.3%	0.0%	0.0%	6.9%	55.2%	35.6%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
90.8%		0.0%		9.2%	

7. Undergraduates in teacher education programs know that they will be required to teach handicapped children in their regular classrooms.

NA	SA	A	N	D	SD
1	3	37	7	37	2
1.1%	3.4%	42.5%	8.0%	42.5%	2.3%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
46.0%		44.8%		9.2%	

83

1

1

84

0

0.

85

1

1

86

0

0.

Table 6 (cont.)

8. Undergraduates in teacher education programs have interest in learning about mainstreaming.

NA	SA	A	N	D	SD
1	5	40	26	15	0
1.1%	5.7%	46.0%	29.9%	17.2%	0.0%
POSITIVE ATTITUDE			NEGATIVE ATTITUDE		NO OPINION
51.7%			17.2%		31.0%

9. Undergraduates should have teaching experience with handicapped children prior to graduation.

NA	SA	A	N	D	SD
0	14	56	8	8	1
0.0%	16.1%	64.4%	9.2%	9.2%	1.1%
POSITIVE ATTITUDE			NEGATIVE ATTITUDE		NO OPINION
80.0%			10.3%		9.2%

10. Undergraduates should have basic understanding about causes of handicaps to work with handicapped children.

NA	SA	A	N	D	SD
1	15	54	13	4	0
1.1%	17.2%	62.1%	14.9%	4.6%	0.0%
POSITIVE ATTITUDE			NEGATIVE ATTITUDE		NO OPINION
79.3%			4.6%		16.1%

11. Undergraduates should have basic understanding about behavior management to work with handicapped children.

NA	SA	A	N	D	SD
0	19	57	7	4	0
0.0%	21.8%	65.5%	8.0%	4.6%	0.0%
POSITIVE ATTITUDE			NEGATIVE ATTITUDE		NO OPINION
87.4%			4.6%		8.0%

Table 6 (cont.)

12. Undergraduates should have basic understanding about teaching techniques to work with handicapped children.

NA	SA	A	N	D	SD
1	26	56	2	2	0
1.1%	29.9%	64.4%	2.3%	2.3%	0.0%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
94.3%		2.3%		3.4%	

13. Undergraduates should have basic understanding about adapted media and materials to work with mainstreamed students upon graduation.

NA	SA	A	N	D	SD
2	17	52	12	4	0
2.3%	19.5%	59.8%	13.8%	4.6%	0.0%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
79.3%		4.6%		16.1%	

14. Undergraduates in teacher education programs in your institution are well equipped to understand and to work with mainstreamed students, upon graduation.

NA	SA	A	N	D	SD
4	0	20	24	32	7
4.6%	0.0%	23.0%	27.6%	36.8%	8.0%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
22.9%		44.8%		32.2%	

15. Undergraduates should be prepared to work only with normal students.

NA	SA	A	N	D	SD
1	0	1	4	41	40
1.1%	0.0%	1.1%	4.6%	47.1%	46.0%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
93.1%		1.1%		5.7%	

Table 6 (cont.)

16. P.L. 94-142, which mandates, "Free and appropriate public education in the least restricted environment for all handicapped students", demands too much extra time from regular teachers.

NA	SA	A	N	D	SD
1	4	19	19	39	5
1.1%	4.6%	21.8%	21.8%	44.8%	5.7%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
50.5%		26.4%		23.0%	

17. Undergraduates in teacher education programs are aware that they will be required to teach gifted children in their regular classrooms.

NA	SA	A	N	D	SD
1	3	55	12	15	1
1.1%	3.4%	63.2%	13.8%	17.2%	1.1%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
66.6%		18.4%		14.9%	

18. Undergraduates should have adequate knowledge about causes, behavior, management, and teaching techniques to work more effectively with gifted children.

NA	SA	A	N	D	SD
1	13	61	9	1	2
1.1%	14.9%	70.1%	10.3%	1.1%	2.3%
POSITIVE ATTITUDE		NEGATIVE ATTITUDE		NO OPINION	
85.0%		3.4%		11.5%	

19. Undergraduates should have teaching experience with gifted children, in addition to student teaching.

NA	SA	A	N	D	SD
0	5	42	21	16	3
0.0%	5.7%	48.3%	24.1%	18.4%	3.4%

Table 6 (cont.)

POSITIVE ATTITUDE
54.0%

NEGATIVE ATTITUDE
21.8%

NO OPINION
24.1%

20. In general, the American educational system should change its approach to work more effectively with gifted children.

NA	SA	A	N	D	SD
2	8	44	22	9	2
2.3%	9.2%	50.6%	25.3%	10.3%	2.3%

POSITIVE ATTITUDE
59.7%

NEGATIVE ATTITUDE
12.6%

NO OPINION
27.6%

21. In general, the American educational system should change its approach to work more effectively with handicapped children.

NA	SA	A	N	D	SD
1	13	50	16	7	0
1.1%	14.9%	57.5%	18.4%	8.0%	0.0%

POSITIVE ATTITUDE
72.4%

NEGATIVE ATTITUDE
8.0%

NO OPINION
19.5%

22. I have or have had handicapped students in my higher education classroom.

78 Yes
89.7% Yes

9 No
10.3% No

23. I feel comfortable with handicapped students in my higher education classrooms.

NA	SA	A	N	D	SD
0	18	53	7	2	0
0.0%	20.7%	60.9%	8.0%	2.3%	0.0%

POSITIVE ATTITUDE
81.6%

NEGATIVE ATTITUDE
2.3%

NO OPINION
8.0%

7 Not Applicable
8.0% Not Applicable

Table 6 (cont.)

24. I relate comfortably with handicapped people outside the classroom.

NA	SA	A	N	D	SD
1 1.1%	12 13.8%	60 69.0%	10 11.5%	4 4.6%	0 0.0%
POSITIVE ATTITUDE 81.6%		NEGATIVE ATTITUDE 4.6%		NO OPINION 11.5%	

25. I change my teaching techniques to help the handicapped students in my higher education classrooms.

12 Yes 13.7%	57 No 65.5%	16 Not applicable 18.3%	2 No Answer 2.3%
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26. If you have or have had a handicapped student in your higher education classroom, please check any of the following which describe what change(s) you make in your teaching techniques to help handicapped students.

6 - 4.8% - Break instruction in smaller steps.

18 - 14.5% - Change the pace of instruction.

5 - 4.0% - Move the student step-by-step from what is known to what should be learned.

32 - 25.8% - Facilitate development of individualized programs.

10 - 8.1% - Emphasize direct instruction rather than discovery methods of learning.

26 - 21.0% - Others _____

22 - 17.7% - Not applicable

5 - 4.0% - No Answer

27. Does your department have a field-based program to place student teachers to work with handicapped students? If "YES", please list or briefly describe the program.

38 - 43.7% - Yes _____

35 - 40.2% - No

13 - 14.9% - I don't know

1 - 1.1% - Not Applicable

Table 6 (cont.)

28. Does your department have a field-based program to place student teachers to work with gifted students? If "YES", please list or briefly describe the program.

25 - 28.7% - Yes _____

46 - 52.9% - No

16 - 18.4% - I don't know

29. Does your department provide any activity that would help student teachers to have some experience with handicapped students besides student teaching? If "YES", please list or briefly describe the activity.

35 - 40.2% - Yes _____

36 - 41.4% - No

16 - 18.4% - I don't know

30. Does your department provide any activity that would help student teachers to have some experience with gifted students besides student teaching? If "YES", please list or briefly describe the activity.

28 - 32.2% - Yes _____

41 - 47.1% - No

18 - 20.7% - I don't know

31. How much importance does mainstreaming play in preparing your course content (syllabus)?

7 - 8.0% - Very much importance

27 - 31.0% - Little importance

6 - 6.9% - Much importance

8 - 9.2% - No importance

38 - 43.7% - Some importance

1 - 1.1% - No answer

32. How many courses do you teach in which you present the topic of mainstreaming?

Number of courses	Number of Respondents
1	26 - 29.9%
2	21 - 24.1%
3	10 - 11.5%
4	2 - 2.3%
5	0 - 0.0%
6	1 - 1.1%
None	21 - 24.1%
No Answer	6 - 6.9%

Table 6 (cont.)

If you emphasize mainstreaming in any one of your courses, please respond to questions 33, 34, 35 and 36. Otherwise, please go to question 37.

33. What percent of your time, on average, during a course do you devote to teaching the concept of mainstreaming?

Semester system

% Time	# of Respondents	% of Total
0%	1	1.2%
5%	20	23.8%
10%	17	20.2%
20%	3	3.6%
30%	3	3.6%
40%	1	1.2%
50%	1	1.2%
60%	0	0.0%
70%	1	1.2%
80%	0	0.0%
90%	0	0.0%
100%	3	3.6%
No Answer	37	44.0%

34. What specific instructional strategies have you used to teach the concept of mainstreaming? Please list the three that are most used.

1. _____
2. _____
3. _____

40 - 45.9% - No Answer

35. The P.L. (Public Law) 94-142 has six major components which are listed below. Which one(s) do you emphasize in your course content? Please rank each component on a scale of "1 - most important; 6 - least important" and write in the blank space on the left.

<u>Grouped Ranking</u>	<u>Total ranked score*</u>	
5	138	Due Process Safeguards
1	84	Least Restricted Environment
4	132	Nondiscriminatory Testing
2	86	Individualized Educational Plan
3	100	Personal Development
6	166	Zero Reject
50.5		No Answer (mean)

*Score for each component - sum of (component score X # of responses).

Table 6 (cont.)

36. Are there any other action(s) you could take to better prepare future teachers to implement P.L. 94-142? Please list or briefly describe.

58 - 66.6% - No Answer

37. Do professors in the teacher education programs and special education programs in your university work together to develop a curriculum in order to prepare future teachers for mainstreaming?

40 - 46.0% - Yes

29 - 33.3% - No

13 - 14.9% - I don't know

5 - 5.7% - No Answer

38. What action(s) could your department take in order to better equip the faculty to teach about the concept of mainstreaming?

39 - 44.8% - No Answer

Statement 3. Of the respondents, 36.8% strongly agreed and 49.5% agreed that handicapped students benefit academically and/or socially from mainstreaming. This showed a Positive Attitude of 86.2%. They demonstrated 2.3% Negative Attitude, and 11.5% had No Opinion.

Statement 4. A large number of respondents agreed (54.0%) and strongly agreed (34.5%) that non-handicapped students benefit socially from mainstreaming, which demonstrated a Positive Attitude of 88.5%. Only 3.4% of the respondents showed a Negative Attitude, and 8.0% had No Opinion.

Statement 5. A Positive Attitude was shown by 79.3% of the respondents of which 52.9% disagreed and 26.4% strongly disagreed that school districts offer enough in-service education to help regular teachers to work adequately with handicapped students in regular classrooms; 3.4% showed Negative Attitude, and 17.2% had No Opinion.

Statement 6. The majority of respondents disagreed (55.2%) and strongly disagreed (35.6%) that undergraduates do not need special training to work with handicapped students, since school districts have specialists in special education available for consultation. These results also showed that a total of 90.8% had a Positive Attitude and no one had a Negative Attitude; 9.2% had No Opinion.

Statement 7. Of the respondents, 3.4% strongly agreed and 42.5% agreed that undergraduates in teacher education know

they will be required to teach handicapped children in their regular classrooms, giving a total of 45.9% demonstrating a Positive Attitude; 2.3% strongly disagreed and 42.5% disagreed, for a total Negative Attitude of 44.8%. There were 9.2% answering No Opinion.

Statement 8. The respondents showed a Positive Attitude (51.7%), of which 5.7% strongly agreed and 46.0% agreed that undergraduates in teacher preparation programs are interested in learning about mainstreaming. A Negative Attitude was demonstrated by 17.2% of the respondents, and a large number of respondents (31.0%) had No Opinion, 29.9% were neutral and 1.1% gave no answer.

Statement 9. Of the respondents, 80.0% demonstrated a Positive Attitude, which was 16.1% strongly agreeing and 64.4% agreeing that undergraduates should have teaching experience with handicapped children prior to graduation; 10.3% had a Negative Attitude and 9.2% had No Opinion.

Statement 10. The respondents had 79.3% Positive Attitude, which showed 17.2% strongly agreeing and 62.1% agreeing that undergraduates should have basic understanding about the causes of handicaps in order to work with handicapped children. A small percent of the respondents (4.6%) had a Negative Attitude and 16.1% had No Opinion.

Statement 11. A Positive Attitude of 87.4% was shown, which was 21.8% strongly agreeing and 65.3% agreeing that undergraduates should have basic understanding about

behavioral management in order to work with handicapped children; 4.6% had a Negative Attitude and 8.0% had No Opinion.

Statement 12. The Positive Attitude of 94.3% was composed of 29.9% strongly agreeing and 64.4% agreeing with the notion that undergraduates should have basic understanding about teaching techniques to work with handicapped children. Only 2.3% demonstrated a Negative Attitude and 3.4% had No Opinion.

Statement 13. The respondents strongly agreed (19.5%) and agreed (59.8%) that undergraduates should have basic understanding about adapted media and materials to work with mainstreamed students upon graduation. A total of 79.3% showed a Positive Attitude, 4.6 % showed a Negative Attitude and 16.1% had No Opinion.

Statement 14. A Negative Attitude of 44.8% was shown, which was composed of 36.8% disagreeing and 8.0% strongly disagreeing that undergraduates in teacher education programs in their institutions were well-equipped to understand and to work with mainstreamed students upon graduation. A Positive Attitude was demonstrated by only 22.9% and a large number had No Opinion, which was 32.2%.

Statement 15. Of the respondents, 93.1% had a Positive Attitude, which was 47.1% disagreeing and 46.0% strongly disagreeing that undergraduates should be prepared to work

only with normal students. A very small number 1.1% of the respondents had Negative Attitude and 5.7% had No Opinion.

Statement 16. A Positive Attitude of 50.5% was shown by the respondents, of which 44.8% disagreed and 5.7% strongly disagreed that P.L. 94-142, which mandates, "free and appropriate public education in the least restricted environment for all handicapped students", demands excessive time from regular teachers. A total of 26.4% showed Negative Attitude and a large group of respondents (23.0%) had No Opinion.

Statement 17. A Positive Attitude was shown by 66.6% of the respondents, of which 3.4% strongly agreed and 63.2% agreed that undergraduates in teacher education programs are aware that they will be required to teach gifted children in their regular classrooms; 18.4% showed a Negative Attitude and 14.9% had No Opinion.

Statement 18. Of the respondents, 80.0% demonstrated a Positive Attitude, of which 14.9% strongly disagreed and 70.1% agreed that undergraduates should have adequate knowledge about causes, behavior, management and teaching techniques to work more effective with gifted children; 3.4% demonstrated a Negative Attitude and 11.5% had No Opinion.

Statement 19. The respondents showed a Positive Attitude (54.0%), of which 5.7% strongly agreed and 48.3% agreed, that undergraduates should have teaching experience with gifted children in addition to regular student teaching; 21.8%

demonstrated a Negative Attitude and quite a large group (24.1%) had No Opinion.

Statement 20. A Positive Attitude of 59.7% was shown, of which 9.2% strongly agreed and 50.6% agreed that, in general, the American educational system should change its approach to work more effectively with gifted children. Of the respondents, 12.6% had a Negative Attitude, and 27.6% had No Opinion.

Statement 21. A Positive Attitude of 72.4% was shown, in which 14.9% strongly agreed and 57.5% agreed that the American educational system should change its approach to work more effectively with handicapped children. Of these respondents, 8.0% showed a Negative Attitude and 19.5% had No Opinion.

Statement 22. A majority of the respondents (89.7%) had or had had handicapped students in their higher education classroom. A small group of respondents (10.3%) had not have such students.

Statement 23. A Positive Attitude of 81.6% was shown, of which 20.7% strongly agreed and 60.9% agreed that they felt comfortable with handicapped students in their higher education classroom. A total of 2.3% demonstrated a Negative Attitude and 8.0% had No Opinion.

Statement 24. A Positive Attitude was shown by 82.7% of the respondents, in which 13.8% strongly agreed and 67.8% agreed that they related comfortably with handicapped people

outside the classroom; 4.6% showed a Negative Attitude and 12.6% had No Opinion.

In order to obtain a "Total Attitude Score" for individual professors' attitudes, the transposed Likert Scale (Table 4) was employed using scores from 1 to 5 (5 being most positive and 1 most negative). For each respondent the Total Attitude Score (TAS) was derived by summing the numerical values for each response. The range of theoretical TAS was determined by multiplying the total number of statements used, 23, (Statements 1-21, 23,24) by each individual score possibility (1 to 5). Therefore professors that had a TAS from 0 to 46 (23 X 2) demonstrated negative attitudes, those with a TAS from 47 to 69 (23 X 3) had neutral attitudes and those with a TAS from 70 to 115 (23 X 5) had positive attitudes.

The overwhelming majority of the respondents, 93.0%, had positive attitudes, 5.7% were considered neutral and 1.1% had negative attitudes (see table below).

Frequency of professors' Total Attitude Scores (TAS).

<u>Transposed Likert Scale</u>	<u>TAS Range</u>	<u>Frequency #</u>	<u>Percent Distribution</u>
1	0-23	0	0.0
2	24-46	1	1.1
3	47-69	5	5.7
4	70-92	55	63.2
5	93-115	26	29.8

TOTAL % DISTRIBUTION: NEGATIVE = 1.1%; NEUTRAL = 5.7%;
POSITIVE = 93.0 %

A Positive Attitude was revealed by 93% of the individual surveys; 5.7% had a Neutral Attitude and 1.1% demonstrated a Negative Attitude, which was only one respondent. It would have been more encouraging to have seen a narrower range of Negative Attitudes and No Opinions for the individual responses. From Table 5, the Negative Attitudes ranged from 1.1% to 44.8%, and the No Opinions, ranged from 3.4% to 32.2%. The frequencies of the TAS were plotted for all respondents (Figure 2).

Results of Reported Actions Toward Mainstreaming

Questions 25 to 38 were concerned with professors' actions toward the concept of mainstreaming. These questions attempted to answer the following question:

"What are professors' reported actions in order to implement the concept of mainstreaming in the content of their courses in the preparation program?"

Since the responses from Questions 25 to 38 were more complex than Questions 1 to 24, each question will be restated for data presentation.

Question 25. I change my teaching techniques to help the handicapped students in my higher education classroom. Only 13.7% of the respondents answered "Yes"; 65.5% answered "No", 18.3% answered "Not Applicable" and 2.3% had no answer.

Question 26. If you have or have had a handicapped student in your higher education classroom, please check any

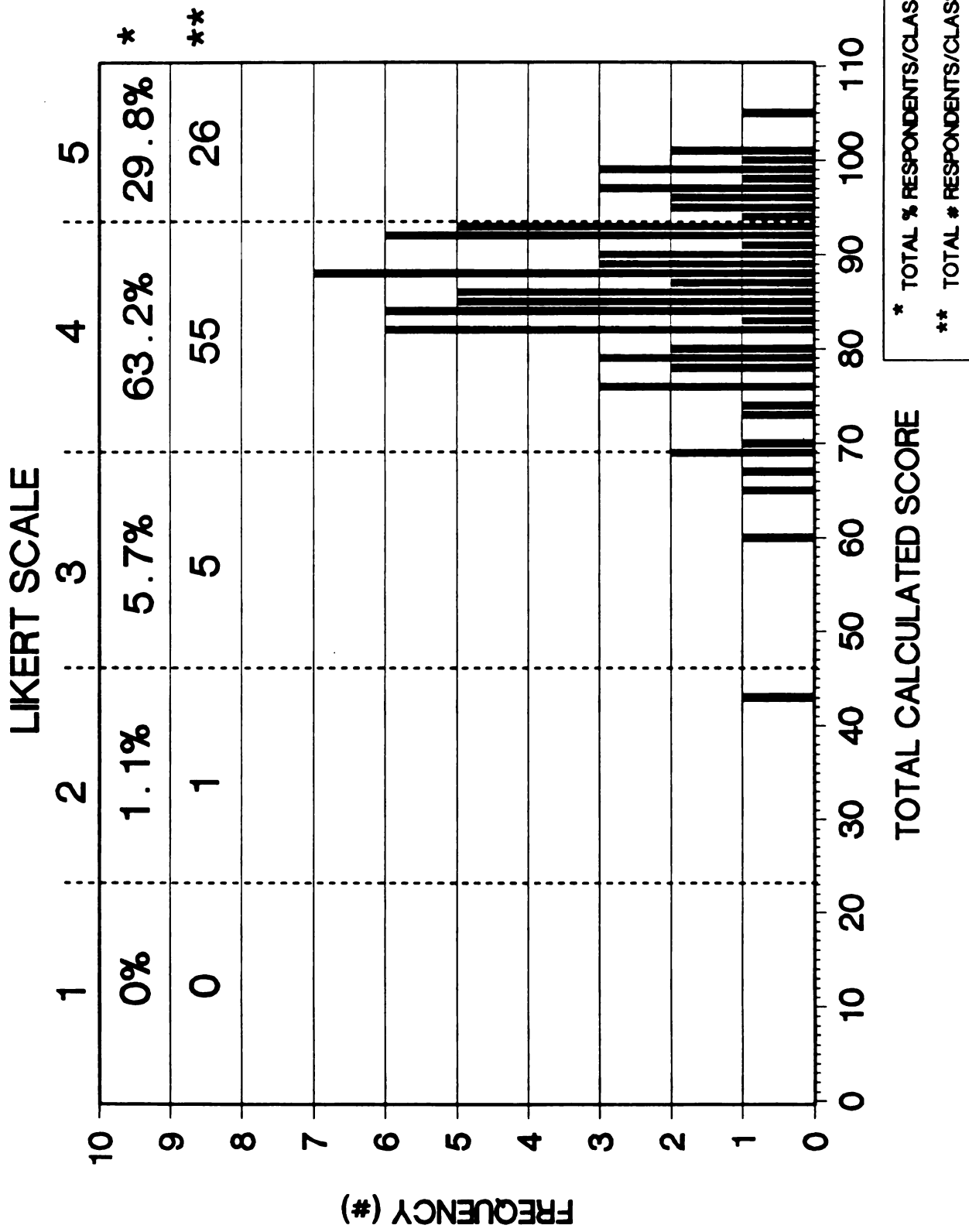


Figure 2. Distribution of total calculated scores.

of the following which describes what change(s) you make in your techniques to help handicapped students.

<u>#</u>	<u>%</u>	
6	4.8	Break instruction in smaller steps
18	14.5	Change the pace of instruction
5	4.0	Move the student step-by-step from what is known to what should be learned
32	25.8	Facilitate development of individualized programs
10	8.1	Emphasize direct instruction rather than discovery methods of learning
26	21.0	Others

Responses from the "Others" category were grouped by topic. The values presented are based on the number of responses for this category only, therefore the total is equal to 100%.

<u>#</u>	<u>%</u>	<u>Strategies Employed</u>
5	19.2	Adjusted the environment for physical limitation
4	15.3	Large printed material provided
3	11.5	Modified assignments and test taking
2	7.6	Accommodated individual needs
2	7.6	Provided tutors to help blind and/or deaf
2	7.6	Changed presentation

For each of the following:

1	3.8	Allowed extra time for exams
"	"	Taped lessons and/or exams for blind.
"	"	Provided notes
"	"	Provided media and material to help blind or deaf or LD, and face class when have deaf student.
"	"	Emphasize open-ended instruction
"	"	More social interaction
"	"	Counseling students
"	"	Teaching by listening
22	17.7	Not Applicable
5	4.0	No Answer

Question 27. Does your department have a field-based program to place student teachers to work with handicapped students? If "Yes" please list or briefly describe.

<u>#</u>	<u>%</u>	
38	43.7	Yes
35	40.2	No
13	14.9	I Don't Know
1	1.1	Not Applicable

The 43.8% that said "Yes" described the following programs:

- Experience with student in mainstreaming K-12.
- Local centers with programs for handicapped, autistic, and other exceptionalities.
- Students spend 10 hours working with handicapped students.

- Early field experience program.
- Experience in residential facilities.
- Placement in Physical Education classroom.
- Several respondents mentioned that they were aware of volunteering programs, but nothing required by the University.
- The program requiring 100-hour field experience was only offered for Special Education majors.

Question 28. Does your department have a field-based program to place student teachers to work with gifted students? If "Yes", please list or briefly describe the program.

<u>#</u>	<u>%</u>	
25	28.7	Yes
46	52.9	No
16	18.4	I Don't Know

The 28.7% responding "Yes" described the following programs:

- Summer programs, saturday school - voluntary.
- Saturday artwork - voluntary.
- Local school does have a program to place student teachers.
- 100 hours field experience.
- Early field experience, this is prior to student teaching.

Question 29. Does your department provide any activity that would help student teachers to have some experience with handicapped students besides student teaching? If "yes", please list or briefly describe the activity.

<u>#</u>	<u>%</u>	
35	40.2	Yes
36	41.4	No
16	18.4	I Don't Know

The 40.2% responding "Yes" described the following programs:

- Early field experience, student is placed in community services.
- Volunteer work.
- Special summer program.
- Reading clinic.
- Human resource courses.
- 1 to 4 hours a week in the public school.
- 90 hours pre-student teaching program.

Question 30. Does your department provide any activity that would help student teachers to have some experience with gifted students besides student teaching? If "yes", please list or briefly describe the activity.

<u>#</u>	<u>%</u>	
28	32.2	Yes
41	47.1	No
18	20.7	I Don't Know

Those responding "Yes" described the following programs:

- Observation in special school for gifted.
- Early field experience.
- Student teachers can be placed with local gifted teachers.

- Summer program.
- 90 hours pre-student teaching program.
- 1 to 4 hours a week in public school.
- Workshop for talented and gifted.

Question 31. How much importance does mainstreaming play in preparing your course content (syllabus)?

<u>#</u>	<u>%</u>	
7	8.0	Very much importance
6	6.9	Much importance
38	43.7	Some importance
27	31.0	Little importance
8	9.2	No importance
1	1.1	No answer

Question 32. How many courses do you teach in which you present the topic of mainstreaming?

<u># Courses</u>	<u># of Respondents</u>	<u>% Taught</u>
0	21	24.1
1	26	29.9
2	21	24.1
3	10	11.5
4	2	2.3
5	0	0.0
6	1	1.1
No Answer	6	6.9

Question 33. What percentage of your time, on average, during a course, do you devote to teaching the concept of mainstreaming?

<u>% Time</u>	<u># of Respondents</u>	<u>% of Total</u>
0	1	1.1
5	20	23.0
10	17	19.5
20	3	3.4
30	3	3.4
40	1	1.1
50	1	1.1
60	0	0.0
70	1	1.1
80	0	0.0
90	0	0.0
100	3	3.4
No Answer	<u>37</u>	<u>42.5</u>

TOTALS: 87 99.6%
(due to rounding)

Question 32. What specific instructional strategies have you used to teach the concept of mainstreaming? Please list the three that are most used.

(The respondents described the following instructional strategies used to teach the concept of mainstreaming.)

<u># of Times Mentioned</u>	<u>Strategies Employed</u>
16	Discussion
14	Readings
8	Lecture
8	Films and Slides
7	Guest Speakers
7	Individualized Instruction
3	Simulation, Role Playing
3	Presentation of Case Studies
3	Cooperative Learning; Group Procedure
2	Alternative Methods of Evaluation
2	Diagnostic and Prescriptive Teaching
2	Methods of Direct Instruction
2	Analysis of Special Books/Materials for Various Types of Studies
2	Teaching Strategies to Deal with Diversity in Regular Classrooms
2	Encourage Students to Work with Mainstreamed Students
2	Practice/Apply New Examples

1	Principles of Interaction
1	Role of the Teacher with Mainstreamed Student
1	Resource Room Support for Mainstreamed Student
1	Adapt Curriculum to Special Students' Needs
40	No Answer (45.9%)

Question 35. Public Law 94-142 has six major components which are listed below. Which one(s) do you emphasize in your course content? Please rank each component on a scale of "1=Most Important; 6=Least Important" and write in the blank space on the left.

Rankings listed by respondents have been totaled by component (Table 7).

Table 7. Distribution of rankings of components from P.L. 94-142 for all respondents.

Component of P.L. 94-142	TOTAL NUMBER OF RESPONSES						No Answ
	-	-	-	-	RANK	-	
	1	2	3	4	5	6	
Due Process Safe.	2	2	13	6	9	4	51
Least Restr. Envir.	13	13	6	3	3	0	49
Nondiscr. Test.	1	3	9	15	4	3	52
Indiv. Educ. Plan	15	18	5	0	4	0	45
Personal Devel.	12	8	4	4	4	4	51
Zero Reject	1	1	1	3	8	18	55

A total score for each component was calculated based on the respondents' rankings from 1 to 6 (Table 7). This Total Component Score was derived by multiplying each of the rank numbers for that component (1-6) by the respective total number of responses. These results were then summed to yield the Total Component Score (Table 8).

For example, for the component "Due Process Safeguards":

$$\begin{aligned}
 \text{Total Component Score} &= (1 \times 2 \text{ responses}) + (2 \times 2 \text{ res.}) \\
 &+ (3 \times 13 \text{ res.}) + (4 \times 6 \text{ res.}) + (5 \times 9 \text{ res.}) + (6 \times 4 \text{ res.}) \\
 &= 2 + 4 + 39 + 24 + 45 + 24 = 138
 \end{aligned}$$

By calculating the Total Component Scores, an overall grouped ranking could be determined. The Total Component Scores, from lowest score to highest score, were assigned values from 1 to 6, respectively. Therefore, from the example, the Overall Component Rank for "Due Process Safeguards was 5.

Table 8. Calculation of Total Component Scores and Overall Component Ranks for P.L. 94-142.

<u>Component of P.L. 94-142</u>	<u>Total Component Score</u>	<u>Overall Component Rank*</u>
Due Process Safeguards	138	5
Least Restricted Environment	84	1
Nondiscriminatory Testing	132	4
Individualized Educational Plan	86	2
Personal Development	100	3
Zero Reject	166	6

(Average of 50.5 "No Answers" for each component.)

*See Page 93 for definitions.

Question 36. Are there any other action(s) you could take to better prepare future teachers to implement P.L. 94-142? Please list or briefly describe.

(The following responses were described by the respondents.)

Mentioned 6 times

- Field experience with opportunity to participate

Mentioned 1 time

- Sensitivity training.
- Real world does not enforce P.L. 94-142.
- Video tapes of learning in special education classes were available to show to undergraduates, then professors could show how the theory of learning differs in special education.
- Joint effort between regular and special education professors.
- Get myself (the respondent) better informed.
- Repeal P.L. 94.142.
- Recommended bibliography:

Blankmanship and Lily, "Mainstreaming students with Learning and Behavior Problems". 1981.

- Devote more time to teach class methodology
- Input into regular education curriculum.
- In-service training of field site personnel.
- Refer students to take classes in Special Education Department.
- Invite specialist to lecture to the class.
- Diagnostic and prescriptive simulations, such as role playing.

(58, 66.6%, of the respondents did not answer this question.)

Question 37. Do professors in the teacher education programs and special education programs in your university work together to develop a curriculum in order to prepare future teachers for mainstreaming?

<u>#</u>	<u>%</u>	
40	46.0	Yes
28	33.3	No
13	14.9	I Don't Know
5	5.7	No Answer

Even though 40 respondents answered Yes, 17 commented that the contact between special education and regular education professors was not enough or was ineffective. One respondent commented "Yes, they have a course in special education for all undergraduates in elementary education."

Question 38. What action(s) could your department take in order to better equip the faculty to teach about the concept of mainstreaming?

The respondents described the following actions:

<u># Respondents</u>	<u>Suggestion</u>
7	Workshops
6	More collaboration and interaction between special education and regular education on planning curriculum development, implementation and innovation.
6	Emphasize mainstreaming importance as part of all courses.
5	Require students to take class in exceptional children and lab. together.
4	Guest lecturer
3	Seminars and colloquia given by special education faculty to regular education faculty.
3	Team teaching between special education faculty and regular education faculty.

1 each of the following:

- Hire new faculty.
- Join organization and supervision of field experience
- Have each faculty member work with special children in the public system.
- Involve the music therapist in music education courses.
- Raise level of consideration across entire school.
- Follow NCATE standards.
- Provide persons, opportunities for clinical experience and funds for more courses.

(39, 44.8%, of the respondents did not answer this question.)

Results of Reported Attitudes Vs. Reported Actions Toward Mainstreaming

In order to analyze the data collected, Linear Regression Analysis was employed. This statistical procedure enabled determination of the relationship between the variables Attitudes and Actions, or X and Y, respectively. When the two variables are related to each other perfectly and the relationship is linear, then, by definition, all of the points will fall on the straight line" (Terrace and Parker, p. 8-2, 1971).

The Correlation Coefficient, r , varies between +1.00 and -1.00. "A Correlation Coefficient of +1.00 means that individuals obtaining a high score on one variable always obtain the same relative high score on a second variable. Likewise, individuals scoring low on one variable always obtain the same relative low score on the second variable" (Terrace and Parker, 1971, p. 7-2). Therefore, the Correlation Coefficient can be either positive or negative.

Otherwise, if the individuals obtain a coefficient with a very low value, there is no relationship between the two variables X and Y. A more accurate statistic is the square of r , known as the Coefficient of Determination. This value was used to determine the correlation of attitudes vs. actions.

From Statements 1 to 24, 10 statements concerning attitudes were selected to be regressed against 7 questions

concerning actions from Questions 25 to 38. The researcher based the selection of the attitude statements on which attitudes could be followed by the professors' direct actions from questions 25 to 38. The rest of the statements concerning professors' attitudes were not selected because these reflected their opinions about the concept of mainstreaming; those questions concerning actions which were not selected had no legitimate attitude with which to compare, or were informational only. These latter statements were reported previously as percent response.

The relationships between the following questions were tested by Linear Regression for all 44 combinations.

<u>Statement #: Attitude</u>		<u>Question #: Action</u>
1,6,10,11,12,13,15,18	X	31,32,33,34,36
22,23	X	25,26

The results of the relationships between the questions mentioned above attempted to answer the following question:

"Is there a relationship between professors' reported attitudes and actions toward the concept of mainstreaming?"

The regression analysis was performed for each of the relationships, with the result that the r square values ranged from 0.00 to 0.18. This leads to the conclusion that since the r squared value was insignificant for these combinations, there was no relationship between professors' reported

attitudes and reported actions toward the concept of mainstreaming.

Consequently, these results fail to reject the null hypothesis, which states, "No significant differences in reported actions will be found between professors who reported negative attitudes toward the concept of mainstreaming in undergraduate teacher preparation programs and professors who reported positive attitudes toward the concept of mainstreaming."

In this chapter the results and analysis of the data were described. In the next chapter the data are discussed.

CHAPTER V - DISCUSSION

An instrument with 38 questions was mailed in the fall of 1987 to determine professors' reported attitudes and reported actions toward the concept of mainstreaming. The survey was mailed to all 150 professors in the early fall, 1987; a second copy of the survey was sent in the late fall, 1987, to those professors who did not respond to the first mailing.

Statements 1 to 24 were related to reported attitudes and Questions 25 to 38 related to reported actions. The overall response from Statements 1 to 24 reflected professors' positive attitudes toward the concept of mainstreaming, with a range of 46.0% to 96.6% positive (Table 5). A wide range of "No Opinion" was found in these statements, which varied from 3.4% to 32.2%. This might indicate that the concept of mainstreaming did not seem as important in their course content, and consequently, was not taught as it should have been.

Based on the results of Statements 1 to 24, the following attitudes were reflected by the responses. The concept should be taught to all future teachers. This is a general consensus between most of the respondents that will not only benefit the handicapped students, but also will benefit the teachers, who

will have a broader understanding and view in education. Future teachers will feel more comfortable and capable to deal with handicapped students. This will lead them to have a better attitude toward individual differences, setting the example for the normal students to have a better attitude toward their handicapped peers.

Socialization of these two groups, handicapped and non-handicapped students, is a very important and necessary part of their academic life, since both groups benefit from these contacts. The teachers' needs were not met with the sole help of the school district. This was reflected in the results of Statements 5 and 6. More in-depth training is necessary and professors need to know better the students they teach, enabling them to meet their students' needs in an easier and more effective manner.

A general consensus was shown in which a majority of the professors agreed that the future teachers need not only to have experience with handicapped students prior to graduation, but they also need to have knowledge about teaching techniques and the ability to adapt media and materials to better work with handicapped students. This reflects an important part of what should be incorporated in the teacher education program curriculum.

A majority of respondents in Statement 14 (44.8%) demonstrated a negative attitude (Table 5), reflecting that they did not feel that the undergraduates in their institution

were well-equipped upon graduation to work with mainstreamed students. A small group (22.9%) demonstrated a positive attitude that the undergraduates were well-prepared upon graduation. A significant number (32.2%) showed "No Opinion" about the students in their institutions. This might reflect not only a lack of knowledge about their students, but also a lack of interest on the part of the professors.

A very large majority of professors (93.1%) saw a need to prepare regular undergraduate teachers to work with mainstreamed students (Statement 15). This is an important finding that can lead and motivate professors to incorporate more the concept of mainstreaming into their course contents.

In the respondents' viewpoint, P.L. 94-142 does not require excessive time of regular classroom teachers. With this viewpoint professors can transmit and demonstrate a more positive attitude about mainstreaming to their students, helping them to bridge the gap between regular and special education.

The participants in this study agreed that learning to work with gifted students should be a part of the regular teacher preparation program. Since not all school districts offer a special program for the gifted, a portion of this population will only be attended by a regular classroom teacher.

Professors generally felt that the American educational system should change its approach to work better with

handicapped and/or gifted; a few of the respondents even expressed that the American system should not only change its approach to work with handicapped and/or gifted, but also should change to work better with regular students.

A large group of professors had handicapped students in their classrooms related comfortably with them in in-class and out-of-class situations.

The findings indicate that the majority of professors demonstrated positive attitudes. This is very important, since those in the higher educational system are in a unique position to transmit to future teachers not only a more positive attitude toward the handicapped, but also can give them better understanding, knowledge and more practical actions to work with this special population. This will help the American educational system to become more responsive to all students, handicapped and non-handicapped.

The responses from Questions 25 to 38 reflected professors' actions toward the concept of mainstreaming. A small group of respondents (13.6%) changed their teaching techniques to accommodate students' needs in their higher education classroom, even though a large group (89.7%) had handicapped students in the higher education classroom (Table 6). This might demonstrate the low importance this special need represents to a professor. Or it might possibly be that he/she felt uncomfortable enough to the point of ignoring the needs of these special students.

A discrepancy was found between Questions 25 and 26; in Question 25 only 12 respondents changed their teaching techniques to accommodate the needs of a handicapped student in their classrooms. In Question 26, those respondents having had handicapped students in their classrooms were asked to check any change listed in the instrument that they used to help handicapped students. A total of 60 answered more than one change, such as "Facilitate development of individualized programs"; "Change pace of instructions"; and, "Emphasize direct instruction rather than discovery methods of learning". In the "Others" category, the most frequent strategies emphasized were "Adjusted the environment for physical limitations"; "Provided large printed materials"; and, "Modified assignments and test taking". Other strategies employed are listed in Table 6.

The discrepancy between these two questions would lead one to believe that even though the professors are trying to accommodate the students' needs, this might or might not be considered a regular practice, since the professors did not appear to perceive that the changes were employed.

The contact between future regular teachers and handicapped students is an important step to help the future teachers to feel confident and comfortable when dealing with this special group of students.

Asking professors if their departments had a field-based program to place students to work with handicapped students

(Question 27), 43.7% responded "Yes" and 40.2% responded "No" (Table 6). The ones that responded "Yes" described some programs, such as "Early field experience" and "10 hours working with handicapped students". However, most of the programs offered were on a voluntary basis only; nothing was required by the universities. Only one of the three universities required a 100-hour field experience program for special education majors.

The same question was asked about a field-based program to place student teachers to work with gifted students. Only 28.7% indicated that these programs were available; 52.9% responded that these were not available. The available programs were described as "100-hour field experience", but did not elaborate whether or not it was required; "Early field experience prior to student teaching"; and, "Voluntary programs". No required experience was mentioned, leaving to the future the decision of having this extra experience or not.

Other activities were offered by the departments to help students to have experience with handicapped students and/or gifted. Those activities included placement in community services, special summer programs, reading clinics, one to four hours per week in a public school, and observation in special schools for the gifted. The universities involved in this study offered several activities to improve the contact of future teachers with handicapped and/or gifted, which

should be very helpful in their preparation to attend to this group in the future. Extra curricular activities are available, but since most of them are not required, the question remains, "Are the future teachers taking advantage of this important part of their training?"

Asking the respondents how much importance mainstreaming plays in preparing their course contact (Question 31), 43.7% indicated "Some Importance" and 31.0% responded "Little Importance" (Table 6). All the other responses were less than 10%. This demonstrated that although mainstreaming is mandated and the future teachers must attend to the handicapped students, not much emphasis has been given to this concept. This was also demonstrated in the next two questions, in which professors were asked to list the number of courses they teach in which the topic of mainstreaming was presented (Question 32), and the list the percent of time, on average, during a course that was devoted to teaching the concept of mainstreaming (Question 33). The majority of the professors taught only one class (29.9%), and 24.1% taught two classes (Table 6); 24.1% did not teach any class. A majority of professors expend an average of 10% of their time teaching about the concept of mainstreaming.

When asked which specific instructional strategies they have used to teach the concept of mainstreaming (Question 34), the traditional strategies were described; "Discussion" 16 times; "Reading" 14 times, and "Lectures" 8 times. More

innovative strategies, such as "role playing, teaching strategies to deal with diversity in regular classroom" was mentioned 2 times and "To adapt curriculum to special students' needs" was mentioned only 1 time. Since 45.9% of the respondents did not answer this question, this might indicate that professors do not place too much emphasis on this concept or do not want to be more specific about their teaching practices.

P.L. 94-142 has six major components. The professors were asked to rank them from 1=Most Important to 6=Least Important (Question 35). Each category was computed separately and a score was given based on the professors' responses. An average of 50.5 "No Answers" for each category was found. A very low group of professors categorized all the 6 components.

Asking the professors what other actions they could take to better prepare future teachers to implement P.L. 94-142 (Question 36), 66.6% of the respondents did not answer this question (Table 6). From a total of 87 respondents, only 29 described the following actions.

Field experience with the opportunity to participate was most frequently mentioned (6 times). All the other actions were mentioned one time only, including video tapes of learning in special education classes, devote more time to teach class methodology, input in regular education curriculum, in-service training of field site personnel, role

playing with students, guest speakers. A few of the respondents suggested that the law should be repealed, while others suggested that this law is not truly enforced in the real educational world.

The high percent of "No Answer" and the belief that the law is not emphasized or should be repealed is a strong indicator of how the professors view and teach this concept, and the low importance that is given to this concept. The concept of mainstreaming relies heavily on the teacher preparation programs and how well those teachers are being prepared by the professors.

A total of 46.0% of the respondents noted an integration between regular education and special education programs to develop a curriculum in order to prepare future teachers for mainstreaming (Question 37). From the 40 respondents, only 17 commented that this contact was not enough or was ineffective.

Asking professors what actions their respective departments could take in order to better equip the faculty to teach about mainstreaming (Question 38), seven listed workshops, while six listed each of the following: more collaboration and interaction between special education and regular education on planning, curriculum development, implementation and innovation; emphasize mainstreaming importance as part of all courses. Five respondents suggested that students be required to take classes and labs in

exceptional children. Several other suggestions were mentioned, such as guest lectures, seminars and colloquia given by special education teams teaching between special education faculty and regular education faculty. The suggestions described by the respondents reflected a clear need and ways to satisfy this need, by equipping the faculty with additional tools to better help prepare the future teachers to meet the challenges of their professional careers.

No relationship was found between attitudes and actions using Linear Regression Analysis. An r squared value was calculated for 44 combinations of attitudes vs. actions, with a range of 0.00 to 0.18, indicating no significant interaction between these variables.

These results fail to reject the null hypothesis which states, "No significant differences in reported actions will be found between professors who reported negative attitudes and professors who reported positive attitudes." This finding leads one to believe that even though the majority of professors demonstrated positive attitudes toward the concept of mainstreaming, fewer actions are being taken in order to implement the concept of mainstreaming to future teachers.

Incorporation of further actions by higher education professors into their course contents would serve to help the future teachers to feel more capable, comfortable and happier when working with this special population, since the future teachers are required by law to work with them. Receiving

more knowledge about curriculum adaptation, media and materials would positively change their points-of-view about special students, making them better educators. This would also cause the resultant classroom experience to be a more successful and viable option for mainstreamed students.

Having discussed the results in this chapter, the conclusions, reflections and recommendations for further research are presented in Chapter VI.

CHAPTER VI - CONCLUSIONS

The results of this study demonstrated that the majority of professors had a positive attitude toward the concept of mainstreaming which reflects a high level of awareness on the part of the professors regarding this concept. However, when compared with attitudes, significantly fewer actions are being taken in order to convey the concept of mainstreaming to future teachers. Based on the results of the linear regression analyses, no correlations were found between selected regressions of attitudes vs actions.

For mainstreaming to be a more successful and viable option for handicapped students as mandated by P.L. 94-142, significantly more actions would be necessary by higher education faculty.

Based on the results of this study, the following reported attitudes were reflected by the responses of the professors surveyed.

The school districts' help was not enough to attend the teachers' needs when working with handicapped students.

The professors' answers reflected little knowledge about the students they teach.

A general consensus was shown in which a majority of the professors agreed that the undergraduates need to have experience, understanding, teaching techniques, and ability to adapt media and

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materials to work with handicapped students upon graduation.

The majority of respondents demonstrated a negative attitude which reflected that they did not feel that the undergraduates in their institutions were well-equipped upon graduation to work with mainstreamed students.

A significant majority of respondents saw a need to prepare undergraduates to be future regular teachers to work with handicapped students.

P.L. 94-142 does not require excessive time of regular classroom teachers, the majority agreed.

Undergraduates need to learn to work with gifted as part of the regular teacher preparation program.

Professors felt that the American educational system should change its approach to work better with handicapped and/or gifted.

The majority of professors had handicapped students in their classroom; they related comfortably with them in in-class and in out-of-class situations.

Generally, a positive attitude was revealed by the responses; a lower range of negative attitudes and "No Opinions" would have been more desirable.

The reported actions revealed by the professors' answers were the following:

A small group of respondents changed their teaching techniques to accommodate students' needs in their higher education classrooms.

43.7% of the respondents indicated their departments offer a field-based program to place student teachers to work with handicapped students, while 40.2% stated that they do not have.

28.7% of the respondents noted that their departments offer a field-based program to place student teachers to work with gifted students; 52.9% responded "No".

Most of these programs for handicapped and gifted were described as voluntary.

A majority of the professors devoted an average of 5% of their course time to teach about mainstreaming.

Most of them taught one or two classes in which they presented the concept of mainstreaming.

The most frequently listed instructional strategies employed by professors to teach the concept of mainstreaming were discussion, readings, and lectures.

Field experience with the opportunity to participate was another action most mentioned that would help to better prepare future teachers for mainstreaming.

Professors reflected the desire and the need for more quality contact between special education faculty and regular education faculty.

In summary, professors demonstrated positive attitudes and stated that some actions are being taken; the need for special education and regular education to work together is clearly expressed. More integration and contribution between inter-departmental faculty would help to better prepare future teachers to work with mainstreaming.

Reflections

The findings of this study lead this researcher to believe that even though the professors demonstrated a positive attitude, more action should be taken in teacher preparation programs in order to implement the concept of mainstreaming. This would better prepare the future teachers to work with handicapped students.

In general, a lack of communication was noted between professors within the same universities. Efforts to improve

communication might likely contribute to more cooperation between the departments of regular and special education and also between faculty within the same department. This could facilitate the professors in developing an integrated curriculum addressing the future teachers' needs to accomplish the goal of teaching handicapped students in the regular classroom.

The large number of "No Responses" to questions throughout the surveys leads this researcher to conclude that many professors in higher education rarely comment on their teaching techniques^R and course contents.

Recommendations for Further Research

Based on the results of the study, recommendations and direction are given for further research on the topic of mainstreaming at the teacher preparation program level.

1. Research concerning faculty actions toward the concept of mainstreaming in other higher education institutions.
2. A study to determine the efficacy of team teaching, done by regular education and special education faculty.
3. Development and implementation of a curriculum to prepare future teachers to work with mainstreamed students.
4. A study to determine communication techniques to diminish the gap between regular education and special education.

5. A study to determine the efficacy of field experience with mainstreamed students.
6. A study to determine what resources are available in communities and how much professors in teaching positions use these resources to better prepare future teachers to work with handicapped and normal students.

Passage of Public Law 94-142 in 1975 began a new era for the education of the handicapped. This law brought serious demands upon the American educational system by requiring that all professionals in education have direct involvement in the educational process of handicapped students. To achieve the goal of properly preparing these students, total cooperation between universities, professors, public systems and teachers is essential in order to help these individuals to reach their full potential in life.

APPENDICES

Appendix A. Survey of university professors' attitudes and actions toward the concept of mainstreaming.

**Survey of University Professors' Attitudes and Actions
Toward the Concept of Mainstreaming**

Please provide the information below as pertains to you.

Semester System _____ weeks Quarter System (10 weeks) _____

Years of University/College teaching: _____

Instructions:

The statements and questions below refer to undergraduates who are being prepared to be regular classroom teachers, not special education teachers. There are 24 statements of attitude and 14 questions about actions. Please read each statement and decide whether you (1) Strongly Agree; (2) Agree; (3) Are Neutral; (4) Disagree; and (5) Strongly Disagree. Then circle your response.

1. Mainstreaming is a concept that should be taught to all future elementary and secondary teachers at the undergraduate level.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

2. Handicapped children should be educated in special classrooms separate from regular students.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

3. Handicapped students benefit academically and/or socially from mainstreaming.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

4. Non-handicapped students benefit socially from mainstreaming.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

Appendix A (cont.)

5. School districts offer enough in-service education to help regular teachers to work adequately with handicapped students, mainstreamed in their regular classrooms.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

6. Undergraduates studying to be regular teachers do not need special training to work with handicapped students, since school districts have specialists in Special Education available for consultation.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

7. Undergraduates in teacher education programs know that they will be required to teach handicapped children in their regular classrooms.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

8. Undergraduates in teacher education programs have interest in learning about mainstreaming.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

9. Undergraduates should have teaching experience with handicapped children prior to graduation.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

10. Undergraduates should have basic understanding about causes of handicaps to work with handicapped children.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

11. Undergraduates should have basic understanding about behavior management to work with handicapped children.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

Appendix A (cont.)

12. Undergraduates should have basic understanding about teaching techniques to work with handicapped children.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

13. Undergraduates should have basic understanding about adapted media and materials to work with mainstreamed students upon graduation.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

14. Undergraduates in teacher education programs in your institution are well equipped to understand and to work with mainstreamed students, upon graduation.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

15. Undergraduates should be prepared to work only with normal students.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

16. P.L. 94-142, which mandates, "Free and appropriate public education in the least restricted environment for all handicapped students", demands too much extra time from regular teachers.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

17. Undergraduates in teacher education programs are aware that they will be required to teach gifted children in their regular classrooms.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

18. Undergraduates should have adequate knowledge about causes, behavior, management, and teaching techniques to work more effectively with gifted children.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

Appendix A (cont.)

19. Undergraduates should have teaching experience with gifted children, in addition to student teaching.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

20. In general, the American educational system should change its approach to work more effectively with gifted children.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

21. In general, the American educational system should change its approach to work more effectively with handicapped children.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

22. I have or have had handicapped students in my higher education classroom.

_____ Yes _____ No

23. I feel comfortable with handicapped students in my higher education classrooms.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

_____ Not applicable

24. I relate comfortably with handicapped people outside the classroom.

1.....2.....3.....4.....5
(SA) (A) (N) (D) (SD)

25. I change my teaching techniques to help the handicapped students in my higher education classrooms.

_____ Yes _____ No _____ Not applicable

Appendix A (cont.)

26. If you have or have had a handicapped student in your higher education classroom, please check any of the following which describe what change(s) you make in your teaching techniques to help handicapped students.

_____ Break instruction in smaller steps.

_____ Change the pace of instruction.

_____ Move the student step-by-step from what is known to what should be learned.

_____ Facilitate development of individualized programs.

_____ Emphasize direct instruction rather than discovery methods of learning.

_____ Others _____

_____ Not applicable

27. Does your department have a field-based program to place student teachers to work with handicapped students? If "YES", please list or briefly describe the program.

_____ Yes _____

_____ No

_____ I don't know

28. Does your department have a field-based program to place student teachers to work with gifted students? If "YES", please list or briefly describe the program.

_____ Yes _____

_____ No

_____ I don't know

Appendix A (cont.)

29. Does your department provide any activity that would help student teachers to have some experience with handicapped students besides student teaching? If "YES", please list or briefly describe the activity.

_____ Yes _____

_____ No

_____ I don't know

30. Does your department provide any activity that would help student teachers to have some experience with gifted students besides student teaching? If "YES", please list or briefly describe the activity.

_____ Yes _____

_____ No

_____ I don't know

31. How much importance does mainstreaming play in preparing your course content (syllabus)?

_____ Very much importance

_____ Little importance

_____ Much importance

_____ No importance

_____ Some importance

32. How many courses do you teach in which you present the topic of mainstreaming?

_____ Number of courses

_____ None

* * *

If you emphasize mainstreaming in any one of your courses, please respond to questions 33, 34, 35 and 36. Otherwise, please go to question 37.

Appendix A (cont.)

33. What percent of your time, on average, during a course do you devote to teaching the concept of mainstreaming?

_____ % - Quarter system (10 weeks)

_____ % - Semester system

34. What specific instructional strategies have you used to teach the concept of mainstreaming? Please list the **three** that are most used.

1. _____

2. _____

3. _____

35. The P.L. (Public Law) 94-142 has six major components which are listed below. Which one(s) do you emphasize in your course content? Please rank each component on a scale of "1 - most important; 6 - least important" and write in the blank space on the left.

_____ Due Process Safeguards

_____ Least Restricted Environment

_____ Nondiscriminatory Testing

_____ Individualized Educational Plan

_____ Personal Development

_____ Zero Reject

Appendix A (cont.)

36. Are there any other action(s) you could take to better prepare future teachers to implement P.L. 94-142? Please list or briefly describe.

* * *

37. Do professors in the teacher education programs and special education programs in your university work together to develop a curriculum in order to prepare future teachers for mainstreaming?

_____ Yes

_____ No

_____ I don't know

38. What action(s) could your department take in order to better equip the faculty to teach about the concept of mainstreaming?

Your comments on any of the questions above will be very much appreciated.

Appendix B. Cover letter to experts introducing the
Content VALIDity Checklist

May 18, 1987

Dear Professor:

As a Ph.D. candidate in Curriculum and Instruction in the College of Education at M.S.U., I am presently working on the research proposal for my dissertation. The title of my research is: "Education Professors' Attitudes and Actions Toward the Issue of Mainstreaming in Undergraduate Teacher Preparation Programs."

I am asking you as an expert in Special Education to complete the following checklist in order to check the content validity of the survey instrument which I have developed and, after revision, will be used to collect data for my dissertation. The purpose of this checklist is to determine if the survey instrument is readily understood and if any improvements or clarifications are necessary prior to mailing of the survey instrument to the sample population. A copy of the survey is included for your own information but is not meant to be completed.

The checklist will require about fifteen minutes to complete. If you have any questions please call me at the number listed below. I would like to pick it up by Wednesday afternoon, May 20, at your office.

Thank you very much for taking the time to complete the content validity checklist. Your input is very critical at this point in my research.

Sincerely yours,

Appendix C. Content Validity Checklist.

Content Validity - Checklist

Part I

Definition of Attitude

An attitude is a mental and neural state of readiness, organized through experience exerting a direct or dynamic influence upon the individual's response to all objects and situations which it is related (Allport, 1967).

Positive and Negative Attitudes

An attitude is a tendency to act toward or against some environmental factor which becomes thereby a positive or negative value (Borgadus, 1931).

Instructions:

After reading each of the survey questions, please respond Yes or No to these two statements. At the end of each section there is space for comments if necessary.

QUESTIONS	Is the question easy to under- stand?	Does the question apply to the definition of attitude?
1. Mainstreaming is a concept that should be taught to all future elementary and secondary teachers at the undergraduate level.	YES ____ NO ____	YES ____ NO ____
2. Handicapped children should stay in special classrooms separate from regular students.	YES ____ NO ____	YES ____ NO ____
3. Handicapped students benefit from mainstreaming.	YES ____ NO ____	YES ____ NO ____
4. Non-handicapped students benefit from mainstreaming.	YES ____ NO ____	YES ____ NO ____
5. School districts offer enough in-service education to help regular teachers to work adequately with handicapped students.	YES ____ NO ____	YES ____ NO ____

Appendix C (cont.)

QUESTIONS	Is the question easy to under- stand?	Does the question apply to the definition of attitude?
6. Since school districts have several specialists in Special Education available for consultation, undergraduates seeking to be regular teachers do not need training at the college level to work with handicapped students.	YES ____ NO ____	YES ____ NO ____
7. Undergraduates in teacher education programs are aware that they will be required to teach handicapped children in their regular classrooms.	YES ____ NO ____	YES ____ NO ____
8. Undergraduates in teacher education programs have interest in learning about mainstreaming.	YES ____ NO ____	YES ____ NO ____
9. Undergraduates should have teaching experience with handicapped children prior to graduation.	YES ____ NO ____	YES ____ NO ____
10. Undergraduates should have basic understanding about causes of handicap to work with handicapped children.	YES ____ NO ____	YES ____ NO ____
11. Undergraduates should have basic understanding about behavior management to work with handicapped children.	YES ____ NO ____	YES ____ NO ____
12. Undergraduates should have basic understanding about teaching techniques to work with handicapped children.	YES ____ NO ____	YES ____ NO ____
13. Undergraduates in teacher education programs are well equipped to understand and to work with mainstreamed students, upon graduation.	YES ____ NO ____	YES ____ NO ____
14. Undergraduates should be prepared to work only with normal students.	YES ____ NO ____	YES ____ NO ____

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Appendix C (cont.)

QUESTIONS

Is the question
easy to under-
stand?

Does the question
apply to the
definition of
attitude?

- | | | |
|---|-----------------------|-----------------------|
| 15. P.L. 94-142, which mandates, "Free public education in a least restricted environment for all handicapped students", demands too much extra time from regular teachers. | YES _____
NO _____ | YES _____
NO _____ |
| 16. Undergraduates in teacher education programs are aware that they will be required to teach gifted children in their regular classrooms. | YES _____
NO _____ | YES _____
NO _____ |
| 17. Undergraduates should have adequate knowledge about causes, behavior, management, and teaching techniques to work more effectively with gifted children. | YES _____
NO _____ | YES _____
NO _____ |
| 18. Undergraduates should have teaching experience with gifted children, in addition to student teaching. | YES _____
NO _____ | YES _____
NO _____ |
| 19. In general, the American educational system should change its approach to work more effectively with gifted children. | YES _____
NO _____ | YES _____
NO _____ |
| 20. In general, the American educational system should change its approach to work more effectively with handicapped children. | YES _____
NO _____ | YES _____
NO _____ |
| 21. I have or have had handicapped students in my higher education classroom. | YES _____
NO _____ | YES _____
NO _____ |
| 22. I feel comfortable with handicapped students in my higher education classrooms. | YES _____
NO _____ | YES _____
NO _____ |
| 23. I relate comfortably with handicapped people outside the classroom. | YES _____
NO _____ | YES _____
NO _____ |

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Part II

Definition of Action

An action is what an individual is doing to reach a particular goal.

Goal (in this study)

The goal is to prepare elementary and secondary teachers to work with mainstreamed students.

Action toward instruction of mainstreaming

This is what the professors are doing to teach the concept of mainstreaming.

* * *

QUESTIONS	Is the question easy to under- stand?	Does the question apply to the definition of action
1. I change my teaching techniques to help the handicapped students in my higher education classrooms.	YES____ NO ____	YES____ NO ____
2. If you have or have had a handicapped student in your higher education classroom, please check any of the following which describe what change(s) you make in your teaching techniques to help handicapped students.	YES____ NO ____	YES____ NO ____
____ Break instruction in smaller steps.		
____ Change the pace of instruction.		
____ Move the student step-by step from what is known to what should be learned.		
____ Facilitate development of individualized programs.		
____ Emphasize direct instruction rather than discovery methods of learning.		
____ Others _____.		
____ Not applicable.		
3. How much importance does mainstreaming play in your course content (syllabus)?	YES____ NO ____	YES____ NO ____

Appendix C (cont.)

QUESTIONS	Is the question easy to under- stand?	Does the question apply to the definition of action
4. How many courses do you teach in which you present the topic of mainstreaming?	YES _____ NO _____	YES _____ NO _____
5. How many hours on an average during a course do you devote to teaching the concept of mainstreaming?	YES _____ NO _____	YES _____ NO _____
6. What kinds of activities do you use to teach the concept of mainstreaming? Please list the three that are most used.	YES _____ NO _____	YES _____ NO _____
7. The P.L. (Public Law) 94-142 has six major components which are listed below. Which one(s) do you emphasize in your course content? Please rank each component on a scale of "1 = most important; 6 = least important" and write in the blank space on the left.	YES _____ NO _____	YES _____ NO _____
<div style="margin-left: 40px;"> _____ Due Process Safeguards _____ Least Restricted Environment _____ Nondiscriminatory Testing _____ Individualized Educational Plan _____ Personal Development _____ Zero Reject </div>		
8. Are there any other action(s) you could take to better prepare future teachers to implement P.L. 94-142? Please list or briefly describe.	YES _____ NO _____	YES _____ NO _____
9. Do professors in teacher education programs and special education programs work together to develop a curriculum in order to prepare future teachers for mainstreaming?	YES _____ NO _____	YES _____ NO _____
10. What action(s) could your department take in order to better equip the faculty to teach about the concept of mainstreaming?	YES _____ NO _____	YES _____ NO _____

COMMENTS

Part III

QUESTIONS

Is the question
easy to understand?

1. Does your department have a program to place student teachers to work with handicapped students? If "Yes", please list or briefly describe the program.

YES _____

NO _____

2. Does your department have a program to place student teachers to work with gifted students? If "Yes", please list or briefly describe the program.

YES _____

NO _____

3. Does your department provide any activity that would help student teachers to have some experience with handicapped students? If "Yes", please list or briefly describe the activity.

YES _____

NO _____

4. Does your department provide any activity that would help student teachers to have some experience with gifted students? If "Yes", please list or briefly describe the activity.

YES _____

NO _____

COMMENTS

September

Dear Pro

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**Appendix D. Cover letter to university professors
introducing the survey instrument.**

September 1987

Dear Professor:

I am a Ph.D. candidate in the Department of Teacher Education at Michigan State University. For my dissertation research I am interested in the topic entitled "Education Professors' Attitudes and Actions Toward the Concept of Mainstreaming in Undergraduate Teacher Preparation Programs".

The importance of this study was derived from the literature and also from the need of teachers in the field to be better equipped to teach mainstreamed students. In an attempt to address this need, I have developed a survey which is being sent to 150 faculty in teacher education at three major universities in the Midwest.

As one who is directly involved in teacher education, your input is extremely valuable. Would you please take about ten minutes of your important time to respond to this survey? It is important to note that the names and responses of those participating in the survey will remain confidential; those electing not to participate will also remain anonymous.

I have enclosed a stamped envelope for your convenience; please return the completed survey as soon as possible. It will be assumed that by returning the survey that you are voluntarily consenting to participate in this study.

Thank you very much for your consideration, time and interest; it is deeply appreciated.

Very sincerely yours,

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Appendix E. Follow-up cover letter to non-responding professors.

February 1988

Dear Professor:

A few months ago, I mailed a survey to you concerned with "Education Professors' Attitudes and Actions Toward the Concept of Mainstreaming in Undergraduate Teacher Preparation Programs".

As one who is directly involved in this area, your input is extremely important in order to complete my study. Would you please take ten minutes of your important time to respond to this survey? It is important to note that the names and responses of those participating in the survey will remain confidential; those electing not to participate will also remain anonymous.

I have enclosed a stamped envelope for your convenience; please return the completed survey as soon as possible. It will be assumed that by returning the survey that you are voluntarily consenting to participate in this study.

Thank you very much for your consideration, time and interest; it is deeply appreciated.

Very sincerely yours,

Figures 3A to F. Percent responses to survey based on
Likert Scale.

Key to Legend

NONE -No Answer

S AGR -Strongly Agree

AGR -Agree

NEU -Neutral

DIS -Disagree

S AGR -Strongly Disagree

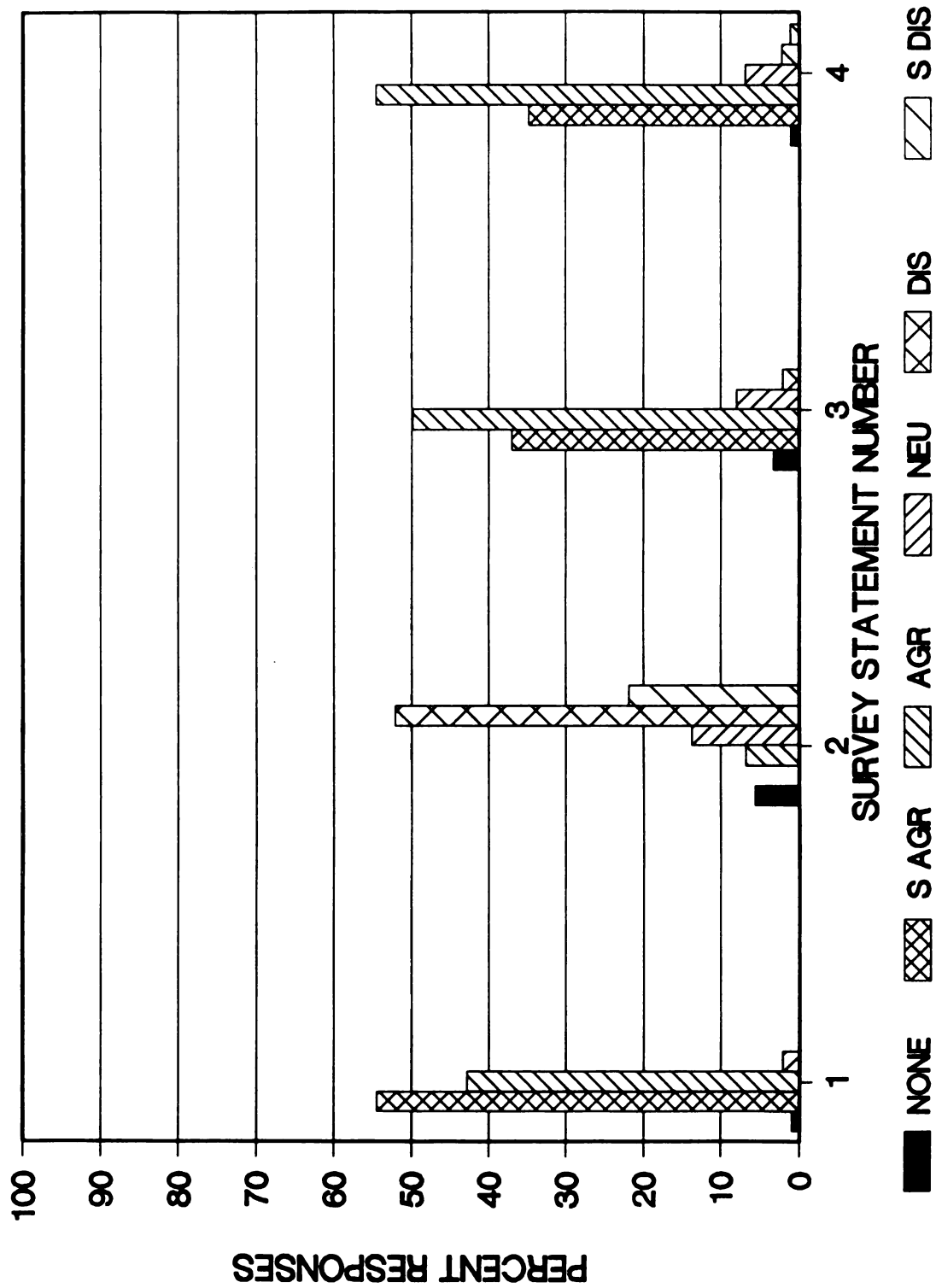


Figure 3A. Percent responses to survey Statements 1 to 4 based on Likert Scale

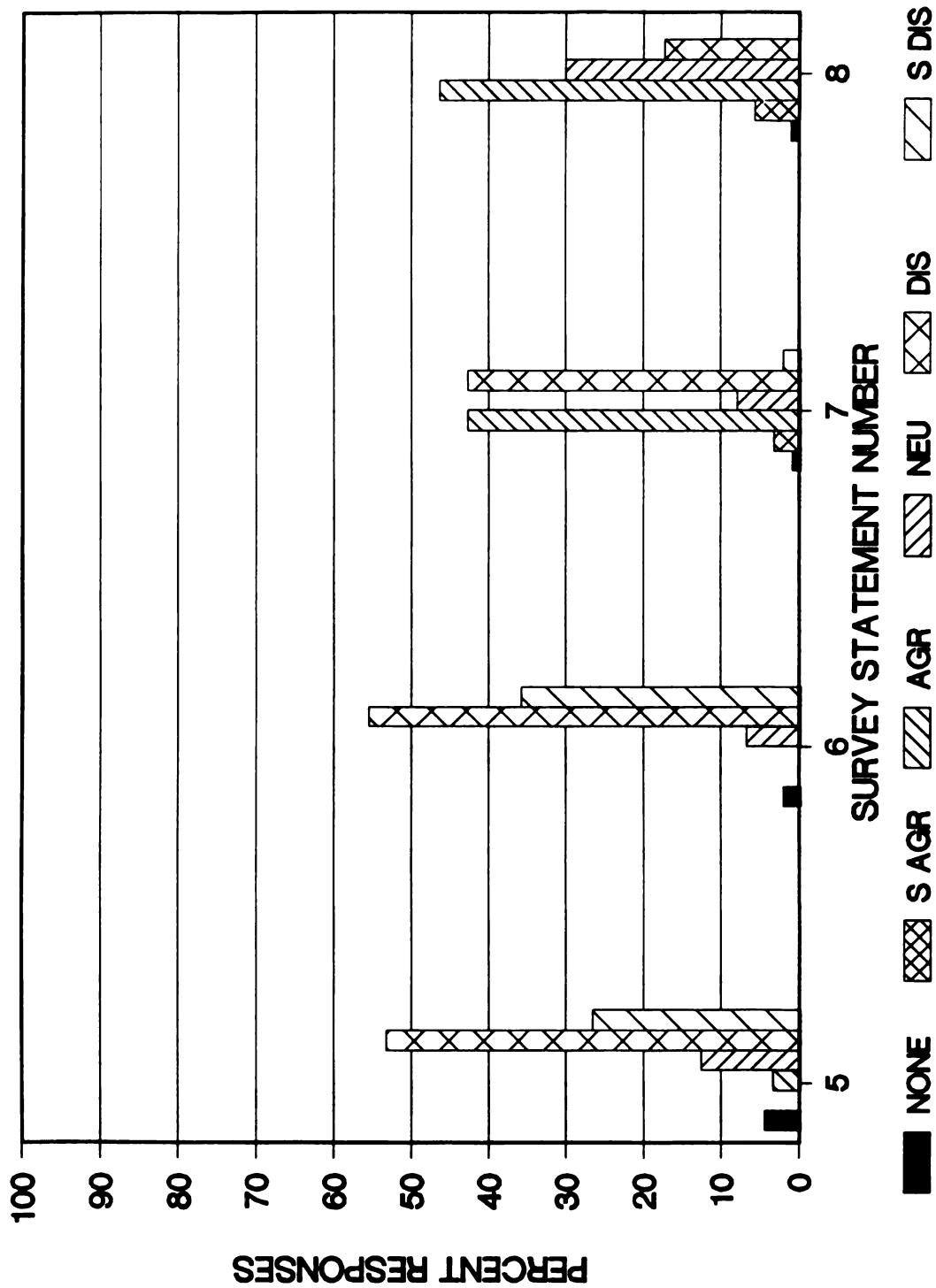


Figure 3B. Percent responses to survey Statements 5 to 8 based on Likert Scale.

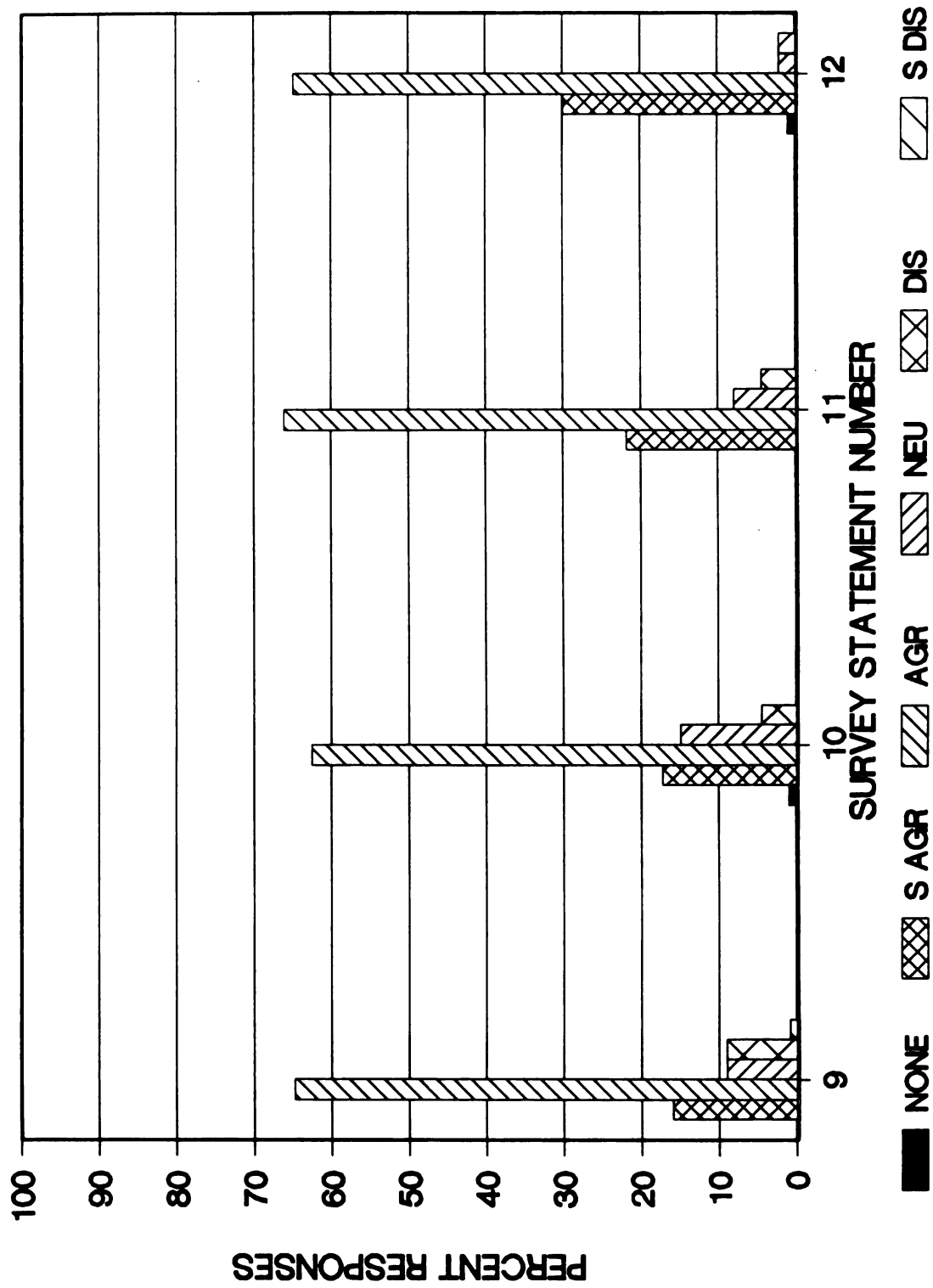


Figure 3C. Percent responses to survey Statements 9 to 12 based on Likert Scale.

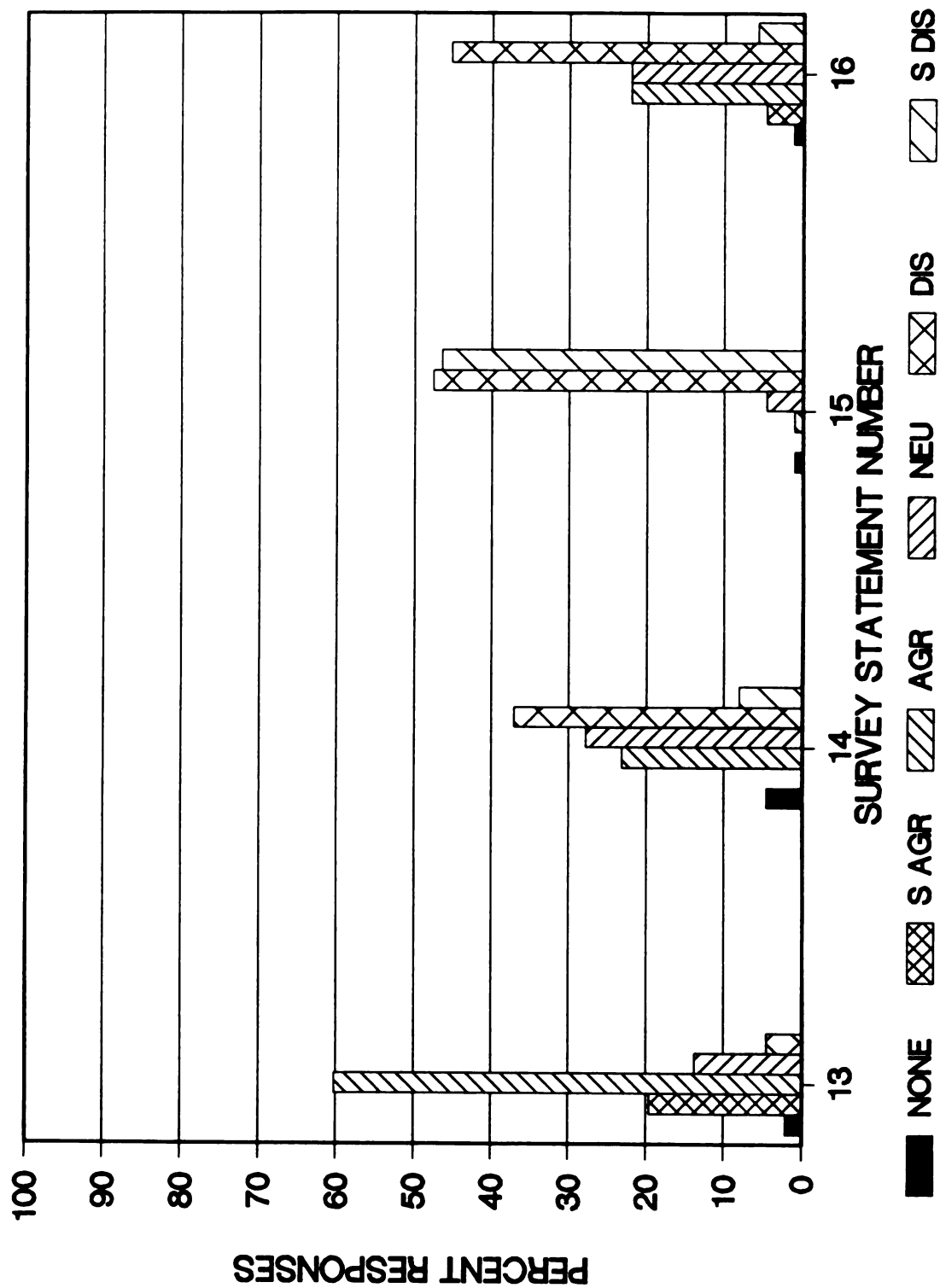


Figure 3D. Percent responses to survey Statements 13 to 16 based on Likert Scale.

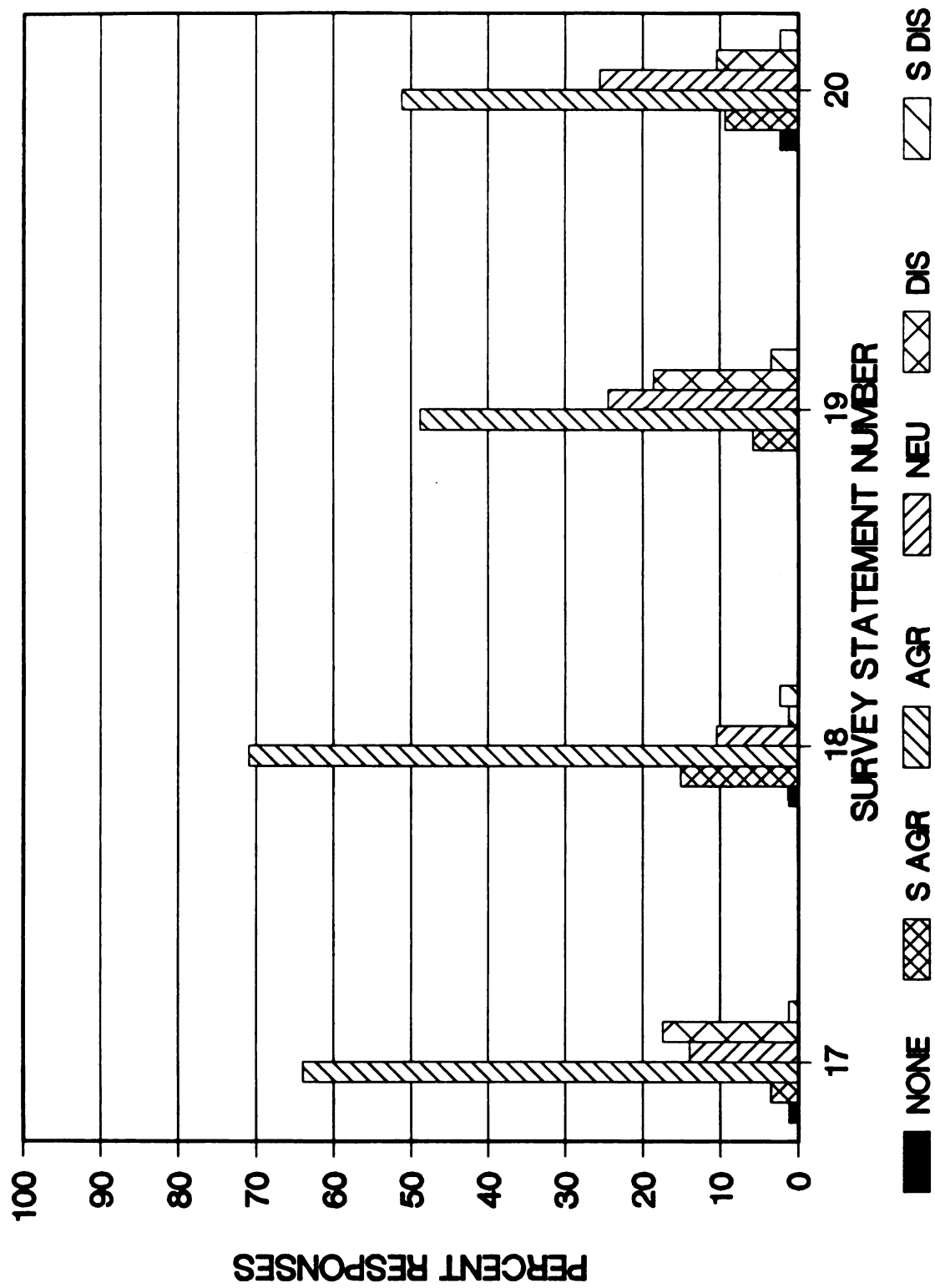


Figure 3E. Percent responses to survey Statements 17 to 20 based on Likert Scale.

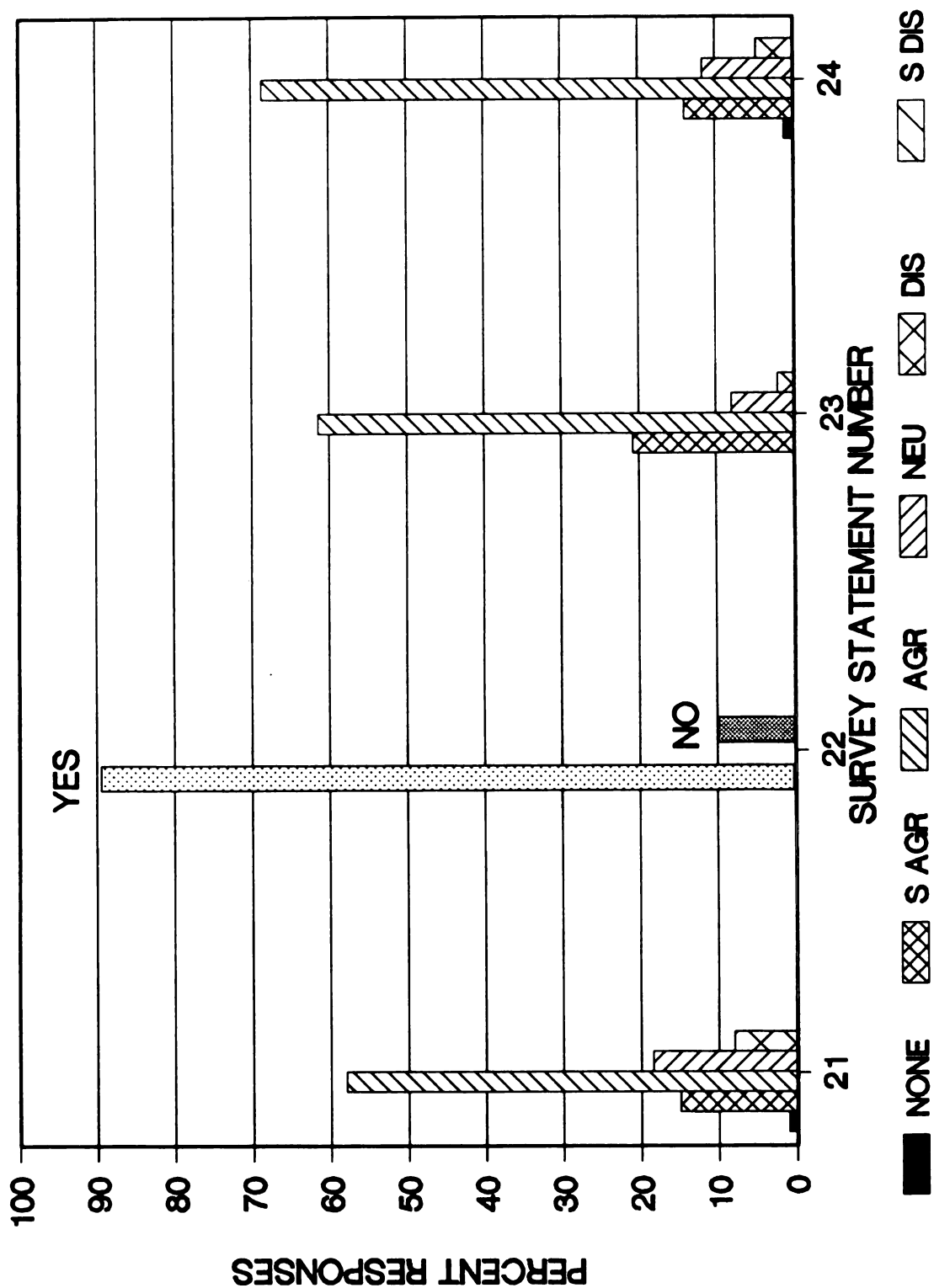


Figure 3F. Percent responses to survey Statements 21 to 24 based on Likert Scale.

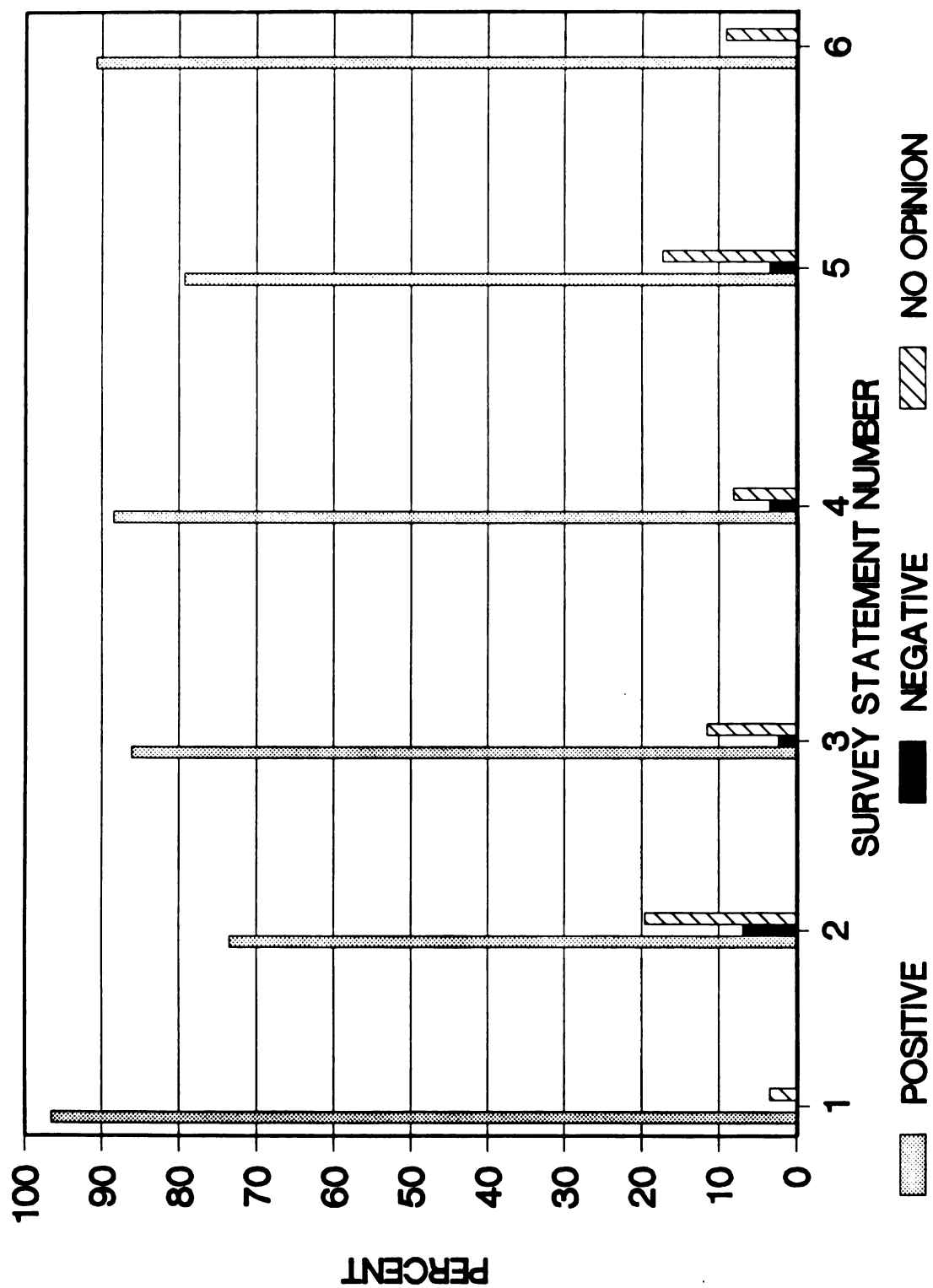


Figure 4A. Percent attitudes (Positive, Negative, No Opinion) for survey Statements 1 to 6.

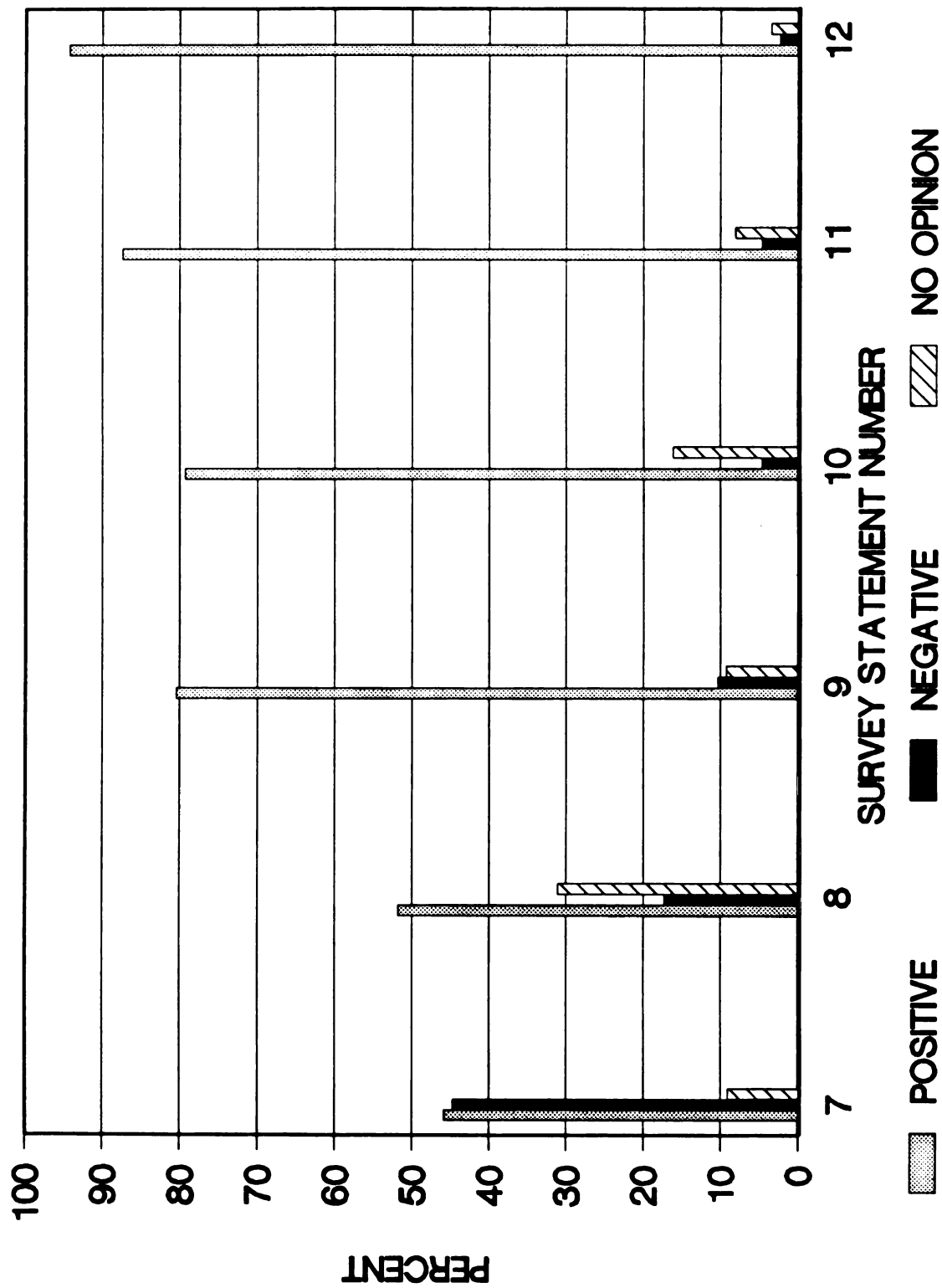


Figure 4B. Percent attitudes (Positive, Negative, No Opinion) for survey Statements 7 to 12.

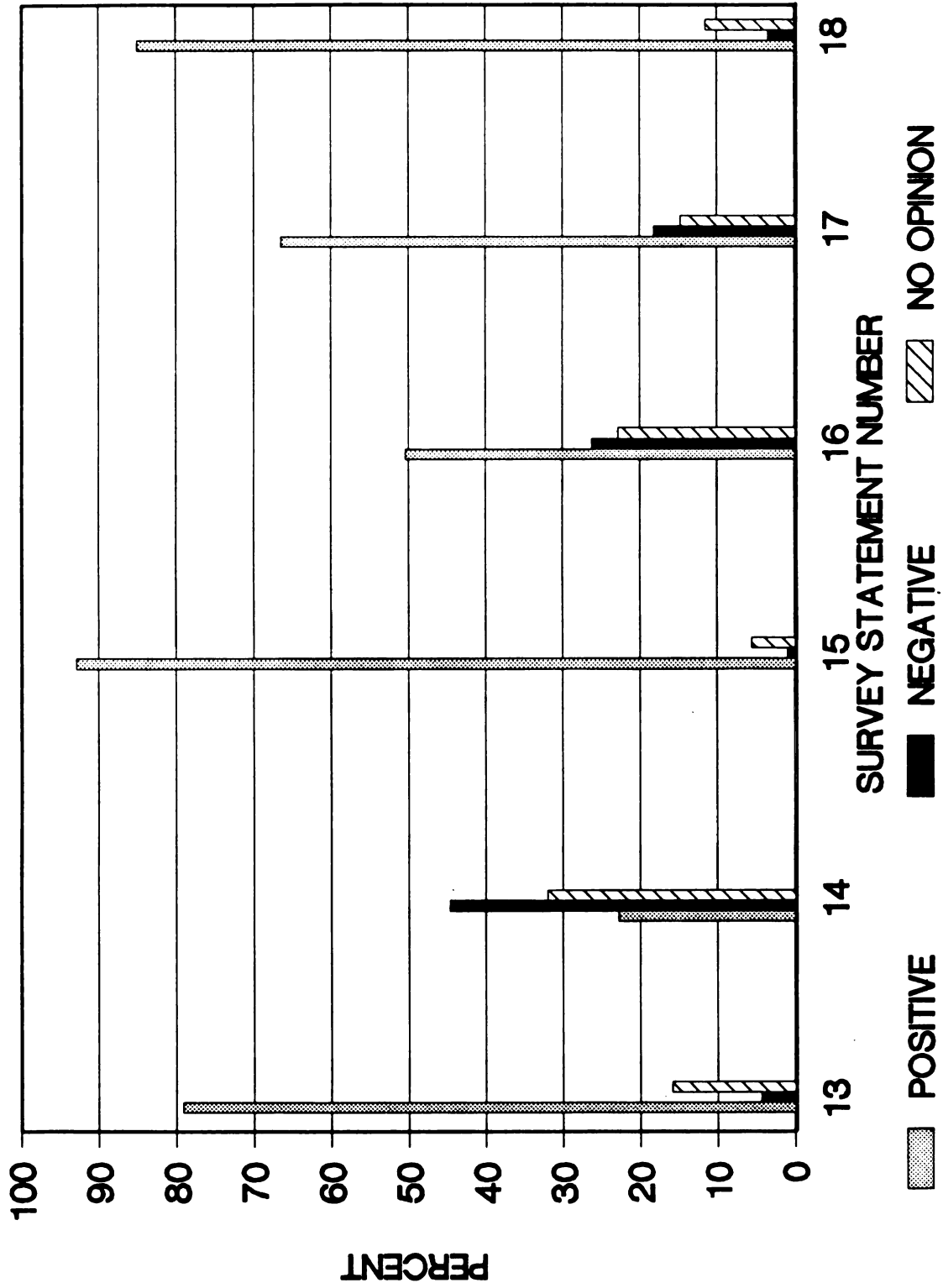


Figure 4C. Percent attitudes (Positive, Negative, No Opinion) for survey Statements 13 to 18.

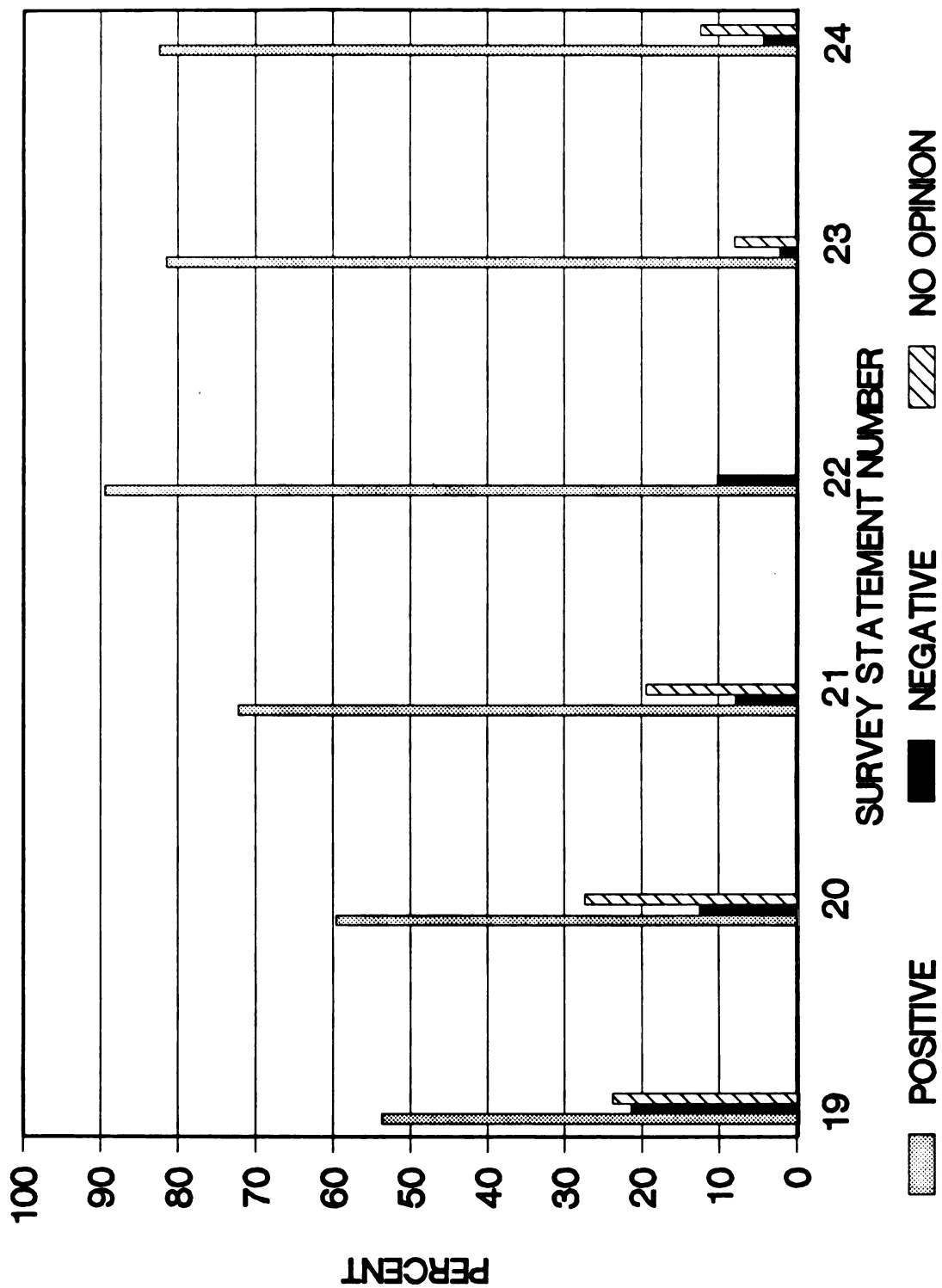


Figure 4D. Percent attitudes (Positive, Negative, No Opinion) for survey Statements 19 to 24.

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