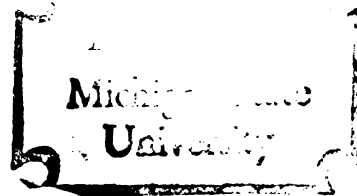




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A COMPARATIVE STUDY OF THE
ATTITUDES, KNOWLEDGE, AND EXPERIENCE
OF TEACHERS REGARDING HANDICAPPING CONDITIONS
AND MAINSTREAMING IN EARLY CHILDHOOD PROGRAMS

presented by

Gayle Mary Clapp

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Family Ecology

Nancy A. Carlson
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Major professor

Date November 9, 1979



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A COMPARATIVE STUDY OF THE ATTITUDES,
KNOWLEDGE, AND EXPERIENCE OF TEACHERS REGARDING
HANDICAPPING CONDITIONS AND MAINSTREAMING IN
EARLY CHILDHOOD PROGRAMS

By

Carol Marie Lewis

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Family Services

1979

A COMPARATIVE STUDY OF THE ATTITUDES,
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ABSTRACT

A COMPARATIVE STUDY OF THE ATTITUDES, KNOWLEDGE, AND EXPERIENCE OF TEACHERS REGARDING HANDICAPPING CONDITIONS AND MAINSTREAMING IN EARLY CHILDHOOD PROGRAMS

By

Gayle Mary Clapp

This study was descriptive and comparative in nature. The primary purposes of the study were to determine, describe and compare the attitudes, knowledge and experience of preprimary teachers regarding the mainstreaming of young handicapped children into existing child care programs. Another purpose of the study was to determine if the degree which preprimary teachers are willing to accept handicapped children into their regular classrooms is a function of one or more of the following four factors: a) the amount of experience the teachers have had interacting with young handicapped children; b) the severity of a child's handicap; c) the type of assistance the teachers would be offered to assist them in the mainstreaming process; and/or d) the level of knowledge teachers have about mainstreaming and handicapping conditions.

The population of this study was preprimary teachers employed in PATHWAYS mainstreamed, Head Start mainstreamed and community non-mainstreamed child care centers. The total sample of seventy-nine teachers were employed in centers located in five Michigan cities. Thirty of the subjects were PATHWAYS teachers, twenty-eight were Head Start

teachers and twenty-one were community center teachers. The data were obtained from a set of three questionnaires which were either personally delivered or mailed to the centers in which the teachers were employed.

The findings of the study indicated that PATHWAYS teachers had significantly more positive attitudes toward mainstreaming than either Head Start or community center teachers. There was no positive relationship between the type of center in which the teachers were employed and the amount of experience they had interacting with young handicapped children regarding their attitudes toward mainstreaming. A main effect was evidenced for type of center but not for amount of experience. A positive relationship existed among the level of knowledge, amount of experience, type of assistance offered to teachers, and the severity of a child's handicap with respect to the willingness of all teachers to accept a mildly, moderately or severely handicapped child into regular classrooms. There were no differences among the three groups of teachers on the background variables of age, sex, racial and ethnic background, parental status or amount of experience interacting with young handicapped children. These variables have little or no impact on the formation of positive attitudes toward mainstreaming by teachers. The data show no significant differences among the three groups of teachers on educational variables such as amount of education, attainment and kind of teacher certification, type of college degree earned and number of inservice training

sessions and college courses taken on meeting the needs of handicapped children. The likelihood that these variables have some impact on the formation of positive teacher attitudes toward mainstreaming is high given the significant relationship between knowledge and attitudes.

Based on the results of this study, the researcher suggests implications for the development of inservice training programs for regular preprimary teachers and for the reorganization of university teacher training programs which would encourage the development of positive teacher (student) attitudes toward mainstreaming and provide teachers (students) with the knowledge, skills and practical experience necessary to meet the needs of both handicapped and non-handicapped children so they would be more willing to voluntarily accept handicapped children into their programs. The researcher also implies that the use of an ecological perspective and a developmental approach to planning for and placing young handicapped children into early childhood programs is paramount to the implementation of a mainstreaming program which provides the handicapped child, "typical" children, program staff, and the parents of the handicapped child with a "successful" mainstreaming experience.

DEDICATION

A person who gives of herself with honesty, compassion and unyielding patience so that another may realize a dream is truly a friend to be treasured. The times when I was physically ill, in doubt of my ability to continue in this program and sorely in need of a friend, she has come to my rescue — opening her heart, her home, and her mind to provide me with shelter, care, encouragement, guidance and self-confidence. She also shared in my joys and successes realized as I progressed through my educational pursuits and grew as a human being.

She has taken me under her wing and served as my mentor throughout these years. She is responsible for fostering my interest in the education of young handicapped children and has guided me in my pursuit of understanding more about the needs and abilities of these special children. My mind has been broadened and I am a better person because of this experience.

For all of this I am eternally grateful to Dr. Nancy A. Carlson, to whom this dissertation is dedicated. Without her this work could not have been realized.

this project. Thank you all.

I have made so many friends during this time who have also played a major role in helping me to complete this program. My thanks and

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I would also like to thank all of the PATHWAYS, Head Start and community childhood center directors and teachers who so willingly gave their time to complete my questionnaires. Without them I could not have begun or completed

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CHAPTER I

INTRODUCTION

Statement of the Problem

The concept and practice of mainstreaming handicapped children into regular classrooms became a reality in Michigan with the passage of the Michigan Mandatory Special Education Act of 1971 (Public Act 198). This law required that all handicapped children between birth and twenty-five years of age be provided with special education and services in the public schools. The mandates of Public Act 198 were expanded upon and strengthened with the enactment of the Education for All Handicapped Children Act (Public Law 94-142) by the United States Congress in 1975. This law was the result of a Congressional investigation which indicated that there were more than eight million handicapped children in the United States whose special needs were not being adequately met in the public schools and over one million handicapped children who were not receiving a public education. Public Law 94-142 required that all handicapped children between three and twenty-one years of age be assured of a free public education in the "least restrictive environment" according to their individual needs and abilities (U.S. Congressional and Administrative News, 1975; Federal Register, August, 1977).

Given the fact that mainstreaming exists, educators would like to assume that they can articulate which particular combination of variables or events need to be

present or occur within a classroom in order to claim that a mainstreaming effort is "successful".

It might also be assumed that mainstreaming is of value to society. First, most educators support the belief that early identification and intervention for young handicapped children is an important first step toward providing "special" children with as "normal" a life as possible while at the same time reducing the threat of their handicapping conditions becoming more severe due to inadequate attention during the early years (Siegel, 1969; Wynne, Brown, Dakof, and Ulfelder, 1975; Lewis, 1973; Weininger, 1973). Second, many early childhood educators believe that mainstreaming provides benefits for parents, teachers and non-handicapped children as well as for the handicapped child (Carlson, 1978; Bricker, 1978; Bricker and Bricker, 1978). Third, Bricker (1978) indicated that mainstreaming may have a positive affect on the attitudes of parents, teachers, other "normal" children, and the community toward handicapped persons and their ability to effectively function within society.

In order for "successful" mainstreaming to occur, it is hypothesized that the following factors are necessary within any educational program. First, most educators believe that the teacher must have a positive attitude toward mainstreaming and the handicapped child (Bricker, 1978; Lance, 1976; Guralnick, 1978; Klein, 1975; Bertness, 1976). Second, a review of research has shown that teacher

experience interacting with handicapped children in an integrated setting may have a direct positive influence on the attitudes of teachers toward mainstreaming (Carlson, 1975, 1978). It has also been suggested that such teacher experiences serve to increase their skills in observing and interpreting "...what is and is not appropriate behavior and skill achievement for a given age (child)" (Wynne, et. al., 1975, p. 58). Third, several proponents of mainstreaming have indicated that regular early childhood education teachers need an adequate support system (e.g. consultant help, teacher aide) to assist them in the successful implementation of the mainstreaming process (Carlson, 1975, 1978; Kelin, 1975; Meisels, 1978). Fourth, it has been reported in the mainstreaming literature that if teachers are provided with (or have) some knowledge about mainstreaming and handicapping conditions, they will more readily accept a handicapped child into their classrooms and feel more competent in their ability to meet the needs of a special child as well as the needs of the rest of the children in the class (Klein, 1975; Panda and Bartel, 1972; Gickling and Theobald, 1975). Finally, Carlson (1978) has stated that careful matching of the needs and characteristics of the handicapped child with the personality of the teacher and a classroom environment which will meet those needs is important for "successful" mainstreaming to occur.

These hypotheses have not been adequately tested, thus indicating a need for a study in which each of these

variables is closely examined and analyzed. This study was designed to investigate and specify the relationship between knowledge and the experience of regular early childhood education teachers in two types of mainstreamed programs (PATHWAYS¹ and Head Start) and community non-mainstreamed programs with respect to their attitudes toward mainstreaming.

Need for the Study

Public Law 94-142 (the Education for All Handicapped Act of 1975) mandated the integration or mainstreaming of handicapped children into the least restrictive educational environment according to an individual child's capability to function within a situation. In accordance with the law, privately operated child care centers in Michigan are beginning to mainstream handicapped children into their programs. However, the knowledge and experience levels of regular early childhood education teachers related to meeting the needs of young handicapped children tend to be almost nonexistent due to lack of training and experience in this area (Carlson, 1978; Ackerman and Moore, 1976).

Information about the attitudes of teachers toward mainstreaming is relatively scarce. Additionally, very few

¹PATHWAYS is a demonstration project, based on the Michigan State University campus, concerned with providing a "Human Support System for Integrated Handicapped Children and Their Families". The project is partially funded by the Bureau of Education for the Handicapped, DHEW; Project Director: Nancy A. Carlson, Ph.D.

studies (Carlson, 1978; Bricker, 1978; Karnes and Teska, 1975) have mentioned or attempted to determine if a relationship exists between the level of knowledge and degree of experience a regular classroom teacher needs to interact with young handicapped children and their attitudes toward mainstreaming. If integration is to continue, additional research in these areas seems to be indicated.

Studies by Johnston (1972), Gorelick (1973) and Abelson (1976) suggested that preprimary teachers were more or less willing to accept handicapped children into their regular classrooms depending on the type and severity of handicaps the children had and the amount or kind of support the teachers would receive in mainstreaming the children. The studies also indicated that the less severe the handicapping condition and the more support the teacher would be offered, the more willing the teacher would be to accept a special child into the classroom. If the teacher is offered less support and the child's handicap is more severe, the teacher may be much less willing to accept a handicapped child.

These studies suggest a need for further research regarding the relationship between the knowledge and experience of teachers and the kind of support offered to teachers with respect to their willingness to accept (attitudes toward accepting) handicapped children into their regular classrooms.

Is there a relationship between knowledge and experience interacting with young handicapped

Objectives

The primary objective of this research is to investigate questions regarding the relationship between the knowledge and experience of preprimary teachers who are employed in PATHWAYS (mainstreamed), Head Start (mainstreamed) and community (non-mainstreamed) child care centers and their attitudes toward mainstreaming. Specifically, answers to the following questions will be sought.

1. Is there a difference in attitudes toward mainstreaming among preprimary teachers employed in PATHWAYS, Head Start and community child care centers?
2. Is there a difference in the level of knowledge about mainstreaming and handicapping conditions among preprimary teachers employed in PATHWAYS, Head Start and community child care centers?
3. Is there a difference in the amount of experience PATHWAYS, Head Start and community center teachers have had interacting with young handicapped children?
4. Is there a relationship between PATHWAYS, Head Start and community center teachers' level of knowledge about mainstreaming and handicapping conditions and their attitudes toward mainstreaming?
5. Is there a relationship between PATHWAYS, Head Start and community center teachers' amount of experience interacting with young handicapped

children and their attitudes toward mainstreaming?

6. To what extent are the decisions of PATHWAYS, Head Start and community center teachers to accept handicapped children into their regular classrooms affected by the kind of additional support they would be offered to assist them in the mainstreaming process?
7. To what extent do child care center teachers differ in their willingness to accept children with handicaps of varying degrees of severity into their regular classrooms?
8. To what extent do PATHWAYS, Head Start and community child care center teachers differ in their willingness to accept children with handicaps of varying degrees of severity into their regular classrooms?
9. To what extent are the amount of experience teachers have interacting with young handicapped children, level of knowledge teachers have about mainstreaming and handicapping conditions and their willingness to accept mildly, moderately or severely handicapped children into their classrooms affected by the type of assistance they would be offered to implement mainstreaming?

Hypotheses

The following hypotheses will be tested:

H1: There is no difference in PATHWAYS, Head Start and community center teachers' attitudes toward mainstreaming.

H1₁: Teachers employed in PATHWAYS centers will have higher mean combined item scores on the "support for educational alternatives" attitude scale than teachers employed in Head Start centers.

H1₂: Teachers employed in Head Start centers will have higher mean combined item scores on the "support for educational alternatives" attitude scale than teachers employed in community centers.

H1₃: Teachers employed in PATHWAYS centers will have higher mean combined item scores on the "benefits of mainstreaming" attitude scale than teachers employed in Head Start centers.

H1₄: Teachers employed in Head Start centers will have higher mean combined item scores on the "benefits of mainstreaming" attitude scale than teachers employed in community centers.

H1₅: Teachers employed in PATHWAYS centers will have higher mean combined item scores on the "skepticism about mainstreaming" attitude scale than teachers employed in Head Start centers.

H1₆: Teachers employed in Head Start centers will have higher mean combined item scores on the "skepticism about mainstreaming" attitude scale

than teachers employed in community centers.

- H2: There is no difference in PATHWAYS, Head Start and community center teachers' level of knowledge about mainstreaming and handicapping conditions.
- H2₁: PATHWAYS teachers will have a higher level of knowledge about mainstreaming and handicapping conditions than Head Start teachers.
- H2₂: Head Start teachers will have a higher level of knowledge about mainstreaming and handicapping conditions than community center teachers.
- H3: There is no difference in PATHWAYS, Head Start and community center teachers' amount of experience interacting with handicapped children.
- H3₁: PATHWAYS teachers will have had a greater amount of experience interacting with handicapped children than Head Start teachers.
- H3₂: Head Start teachers will have had a greater amount of experience interacting with handicapped children than community center teachers.
- H4: There is no relationship among PATHWAYS, Head Start and community center teachers' amount of experience interacting with handicapped children with respect to their attitudes toward mainstreaming.
- H4₁: The relationship between amount of experience interacting with handicapped children and the attitudes of teachers toward mainstreaming will be greater for PATHWAYS teachers than for Head

- H3: Start teachers.
- H4₂: The relationship between amount of experience interacting with handicapped children and the attitudes of teachers toward mainstreaming will be greater for Head Start teachers than for community center teachers.
- H5: There is no relationship among PATHWAYS, Head Start and community center teachers' level of knowledge about mainstreaming and handicapping conditions with respect to their attitudes toward mainstreaming.
- H5₁: The relationship between the teachers' level of knowledge about mainstreaming and handicapping conditions and their attitudes toward mainstreaming will be greater for PATHWAYS teachers than for Head Start teachers.
- H5₂: The relationship between the teachers' level of knowledge about mainstreaming and handicapping conditions and their attitudes toward mainstreaming will be greater for Head Start teachers than for community center teachers.
- H6: There is no relationship among the amount of experience interacting with young handicapped children teachers have and the type of assistance they would be offered in mainstreaming a mildly, moderately or severely handicapped child with respect to their willingness to accept a handicapped child into their regular classrooms.

- H6₁: Teachers who have a high amount of experience and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.
- H6₂: Teachers who have a medium amount of experience and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.
- H6₃: Teachers who have a low amount of experience and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.
- H6₄: Teachers who have a high amount of experience and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.
- H6₅: Teachers who have a medium amount of experience and are offered the assistance of an additional

teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₆: Teachers who have a low amount of experience and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₇: Teachers who have a high amount of experience and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than severely handicapped child.

H6₈: Teachers who have a medium amount of experience and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₉: Teachers who have a low amount of experience and

H7: There are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₁₀: Teachers who have a high amount of experience and are offered the assistance of a teacher aide and a resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₁₁: Teachers who have a medium amount of experience and are offered the assistance of a teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₁₂: Teachers who have a low amount of experience and are offered the assistance of a teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7: There is no relationship among the level of knowledge about mainstreaming and handicapping conditions teachers have and the type of assistance they would be offered in mainstreaming a mildly, moderately or severely handicapped child with respect to their willingness to accept a handicapped child into their regular classrooms.

H7₁: Teachers who have a superior level of knowledge and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₂: Teachers who have an average level of knowledge and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₃: Teachers who have a below average level of knowledge and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₄: Teachers who have a superior level of knowledge and are offered the assistance of an additional

teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₅: Teachers who have an average level of knowledge and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₆: Teachers who have a below average level of knowledge and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₇: Teachers who have a superior level of knowledge and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₈: Teachers who have an average level of knowledge

H7₁₂: and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₉: Teachers with a below average level of knowledge

H8: There and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₁₀: Teachers who have a superior level of knowledge and are offered the assistance of a teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₁₁: Teachers who have an average level of knowledge and are offered the assistance of a teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

- H7₁₂: Teachers with a below average level of knowledge and are offered the assistance of a teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.
- H8: There is no difference among PATHWAYS, Head Start and community center teachers' willingness to accept a mildly, moderately or severely handicapped child into their classroom with respect to the type of assistance they would be offered.
- H8₁: PATHWAYS teachers will be more willing to accept a mildly handicapped child than Head Start teachers if offered the assistance of an additional teacher aide than if offered no additional assistance.
- H8₂: Head Start teachers will be more willing to accept a mildly handicapped child than community center teachers if offered the assistance of an additional teacher aide than if offered no additional assistance.
- H8₃: PATHWAYS teachers will be more willing to accept a mildly handicapped child than Head Start teachers if offered the assistance of an experienced resource person than if offered an additional teacher aide.

- H8₄: Head Start teachers will be more willing to accept a mildly handicapped child than community center teachers if offered the assistance of an experienced resource person than if offered an additional teacher aide.
- H8₅: PATHWAYS teachers will be more willing to accept a mildly handicapped child than Head Start teachers if offered the assistance of an additional teacher aide and an experienced resource person than if offered the assistance of only an experienced resource person.
- H8₆: Head Start teachers will be more willing to accept a mildly handicapped child than community center teachers if offered an additional teacher aide and an experienced resource person than if offered the assistance of only an experienced resource person.
- H8₇: PATHWAYS teachers will be more willing to accept a moderately handicapped child than Head Start teachers if offered the assistance of an additional teacher aide than if offered no additional assistance.
- H8₈: Head Start teachers will be more willing to accept a moderately handicapped child than community center teachers if offered the assistance of an additional teacher aide than if offered no additional assistance.

- H8₉: PATHWAYS teachers will be more willing to accept a moderately handicapped child than Head Start teachers if offered the assistance of an experienced resource person than if offered an additional teacher aide.
- H8₁₀: Head Start teachers will be more willing to accept a moderately handicapped child than community center teachers if offered the assistance of an experienced resource person than if offered an additional teacher aide.
- H8₁₁: PATHWAYS teachers will be more willing to accept a moderately handicapped child than Head Start teachers if offered the assistance of an additional teacher aide and an experienced resource person than if offered only the assistance of an additional resource person.
- H8₁₂: Head Start teachers will be more willing to accept a moderately handicapped child than community center teachers if offered an additional teacher aide and an experienced resource person than if offered the assistance of only an experienced resource person.
- H8₁₃: PATHWAYS teachers will be more willing to accept a severely handicapped child than Head Start teachers if offered the assistance of an additional teacher aide than if offered no additional assistance.

- H8₁₄: Head Start teachers will be more willing to accept a severely handicapped child than community center teachers if offered the assistance of an additional teacher aide than if offered no additional assistance.
- H8₁₅: PATHWAYS teachers will be more willing to accept a severely handicapped child than Head Start teachers if offered the assistance of an experienced resource person than if offered an additional teacher aide.
- H8₁₆: Head Start teachers will be more willing to accept a severely handicapped child than community center teachers if offered the assistance of an experienced resource person than if offered an additional teacher aide.
- H8₁₇: PATHWAYS teachers will be more willing to accept a severely handicapped child than Head Start teachers if offered the assistance of an additional teacher aide and an experienced resource person than if offered only the assistance of an additional resource person.
- H8₁₈: Head Start teachers will be more willing to accept a severely handicapped child than community center teachers if offered the assistance of an additional teacher aide and an experienced resource person than if offered only the assistance of an additional resource person.

H9: There is no difference in the teachers' willingness to accept a mildly, moderately or severely handicapped child into their regular classrooms.

H9₁: Teachers are more willing to accept mildly handicapped children into their classrooms than moderately handicapped children.

H9₂: Teachers are more willing to accept moderately handicapped children into their classrooms than severely handicapped children.

Assumptions

The following assumptions underlie this study:

1. An initial understanding of the relationships that exist between different levels of cognitive (knowledge and experience/application) and affective (attitudes, responding, valuing and organization) behaviors can be assessed using the "Likert-type" questionnaire and a survey technique.
2. Each affective behavior has a corresponding cognitive behavior to which it is related (Krathwohl, Bloom, Masia, 1964).
3. Early childhood education teachers share responsibility with parents for the education and socialization of young children (Soderman, 1979; Karnes and Lee, 1979).
4. The positive (negative) attitudes of early childhood center teachers regarding handicapped

children and mainstreaming are two of the factors which determine the success or failure of mainstreaming efforts.

5. All Head Start centers are presently mainstreaming handicapped children into their programs in accordance with the mandates of Public Law 94-424 of 1972.

Limitations of the Study

This study is limited to the selected sample of teachers employed in PATHWAYS, Head Start and community child care centers in cities with between 50,000 and 197,000 people. This fact makes generalizability limited. However, generalizations to the population of the fifty teachers who were teaching in PATHWAYS are appropriate because all of this population was surveyed and a highly representative sample of thirty teachers was obtained.

The use of an ex post facto research design imposed several limitations on this study. First, the "truth" of the hypothesized relationship between the dependent and independent variables cannot be asserted with the confidence of an experimental situation due to an inability to control the independent variables (Kerlinger, 1973). A second limitation of this type of research is the inability to randomly select and assign subjects to groups, thus the subjects within groups are fixed. The a priori self-selection of subjects into groups is a third limitation of this research. History and maturation also limit the

internal validity of this study (Kerlinger, 1973; Campbell and Stanley, 1963).

The interaction of history and treatment affects the external validity of this study because the survey was conducted at the end of the academic school year when preprimary teachers tend to be extremely busy completing final reports on pupil progress, conducting parent conferences, and preparing to close the school for the summer or preparing for the summer session. These external factors have produced responses to the survey which may not have been evidenced at another time of the year (Campbell and Stanley, 1963, p. 20).

That this study was conducted near the end of the academic school year also limited the number of community and Head Start centers which could be selected and thus reduced the number of teachers available to participate in the study. This limitation resulted in a smaller sample size of Head Start and community center teachers than ordinarily would have been available.

The validation procedures of the study are limited in that only one of the three instruments used in this study had been previously validated with subjects of similar characteristics to those subjects who participated in the study. The Integration Opinionnaire had been previously validated and coding procedures standardized. Three attitude scales, each consisting of from five to eight items included in the Integration Opinionnaire were also determined to be reliable

with an Alpha Reliability score of .50 or above. These three scales were: 1) benefits of mainstreaming; 2) support for educational alternatives; and 3) skepticism about mainstreaming. The Background and Experience Information and the Survey of Terminology: Mainstreaming and Handicapping Conditions questionnaires were only pilot tested on a small sample ($n = 15$) of child development teachers and students with a wide range of both knowledge and experience regarding handicapped children and mainstreaming. Furthermore, since the latter two instruments were developed by the investigator solely for the purposes of this study, methodological and coding procedures had not been established previously.

The possibility of using complex statistical procedures such as multivariate techniques was also a limitation of this study. Such techniques could not be utilized due to the interval nature of the dependent variable willingness to accept a handicapped child into a regular classroom. This limitation explains the need for many additional alternative hypotheses.

Operational Definitions

The following definitions of terms used throughout this study provide a common basis for understanding.

Community non-mainstreamed center: an early childhood education center which serves preschool aged children but is not currently mainstreaming handicapped children into its regular classrooms.

Early Childhood Education Center or Child Care Center:

...means a facility, other than a private residence, receiving more than six preschool or school age children for group care for periods of less than twenty-four hours a day, and where the parents or guardians are not immediately available to the child. It includes a facility which provides care for not less than two consecutive weeks, regardless of the number of hours of care per day. The facility is generally described as a child care center, day care center, day nursery, nursery school, parent cooperative, preschool, play group, or drop-in center. (Department of Social Services, 1977)

For the purposes of this study, school age children are not included.

Handicapped children:

...means mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired children who by reason thereof require special education and related services. The term includes children with specific learning disabilities to the extent that such children are health impaired children who by reason thereof require special education and related services. (Federal Register, August 23, 1977)

The definition as it relates to this study includes only those handicapped children between the ages of two and six years.

Head Start mainstreamed center: an early childhood education center which is mainstreaming handicapped children into its classrooms according to the mandates of Public Law 94-424 passed by Congress in 1972 which states that ten percent of the children served in Head Start classrooms shall be handicapped.

Integrated: "Containing a mixed population of handicapped and non-handicapped children where curricular programming is appropriate to the needs of both" (Soderman, 1979, p. 14).

Mainstreaming: The legislatively mandated practice of integrating handicapped children into the regular classroom (Meisels, 1978; Soderman, 1979).

"Normal" children: This term is used synonymously with the terms "non-handicapped" and "typical" to refer to children between the ages of two and six years who cannot be labeled or defined as handicapped children.

PATHWAYS mainstreamed center: an early childhood education center which is mainstreaming handicapped children with the support of the Michigan State University PATHWAYS Project.

Teacher or caregiver: refers to an adult providing direct care, supervision, and guidance to children between two and six years of age in an early childhood education center.

Conceptual Definitions

Affective domain: encompasses those human behaviors which emphasize a "...feeling tone, an emotion, or a degree of acceptance or rejection" (Krathwohl, et. al., 1964, p. 7). This domain includes the individual's interests, attitudes, appreciations, values, codes, principles or sanctions which are internalized and serve in the formation

of judgements and as guides of conduct (Good, 1959; Krathwohl, et. al., 1964).

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

Cognitive domain: encompasses human behaviors which involve such intellectual (mental) tasks as remembering or recall of information, comprehension, problem-solving, synthesis, and evaluation (Krathwohl, et. al., 1964; Bloom, 1956).

Experience: refers to the length of time a teacher has spent interacting with (a) handicapped child(ren) between two and six years of age. Experience is determined by multiplying the total number of hours per week spent interacting with the handicapped child(ren) by the total length (number of years/months) of interaction time spent with the handicapped child(ren).

Knowledge: "Knowledge of specifics refers to types of information that can be isolated and remembered separately..." (Bloom, 1956, p. 7). Knowledge, for the purposes of this study, refers to the preprimary teacher's ability to recall information (terminology, specific facts, categories and classifications) related to mainstreaming and handicapping conditions as defined in the Survey of Terminology: Mainstreaming and Handicapping Conditions

developed for this study.

Level of Knowledge: refers to the degree which pre-primary teachers' have knowledge about mainstreaming and handicapping conditions as measured by the number of correct responses given on the Survey of Terminology: Mainstreaming and Handicapping Conditions developed by the investigator for this study.

Opinion: a verbal expression or index of an attitude which can be classified and measured along a continuum from positive to negative (Thurstone, 1967a, 1967b; Allport, 1935).

Conceptual Orientation

Attitude Theory

The study of human attitudes appears more frequently than any other form of human behavior or phenomena throughout experimental and theoretical literature (Allport, 1935; Thurstone, 1967a; Rokeach, 1968). The definition of attitude provided by Allport (1935) will serve as the foundation for the conceptual orientation of this study. Allport (1935) defined an attitude as:

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

According to Allport (1935), attitudes are formed through life experiences involving perceptions, imitations of others and traumatic situations. The experiences are supplemented

with individual behavioral patterns and conceptual systems which provide direction to the person's adaptive conduct.

An attitude is related to, but is not, a belief or an opinion. Beliefs are components of and instrumental in the formation of attitudes. Alternately, opinions are verbal expressions or indexes of attitudes (Thurstone, 1967a, 1967b). Thurstone (1967a) suggested that an attitude consists of numerous beliefs which may be positive, neutral or negative according to the source of their information. Stereotyped or prejudiced attitudes, which tend to be highly controversial, generally exist on either the positive or negative end of a continuum. However, those attitudes which are formed as a result of socialization throughout childhood and which often evoke the same response over a period of time are classified as neutral (Allport, 1935; Shaw and Wright, 1967).

In addition to classifying attitudes according to their intensity, Allport (1935) contended that people's attitudes may also be identified as public or private. Public attitudes are those which are socially determined and most readily disclosed by an individual. Private attitudes are those attitudes which are often reserved within the individual's mind and are seldom revealed (Allport, 1935).

Relationship Between Affective and Cognitive Behaviors

Many well known psychologists believe a strong relationship exists between the affective (e.g. attitudes,

interests, values) and cognitive (e.g. knowledge, problem-solving, evaluation) behaviors of human beings (Krathwohl, et. al., 1964). Evidence of the strength of this relationship is presented in Scheerer's (1954) statement that:

...behavior may be conceptualized as being embedded in a cognitive-emotional-motivational matrix in which no true separation is possible. No matter how we slice behavior, the ingredients of motivation-emotion-cognition are present in one order or another. (p. 123)

In a discussion related to the analysis of cognitive behavior, Rokeach (1960) pointed out that "...every affective state also has its representation as a cognitive state in the form of some belief or some structural relation among beliefs within a system" (p. 339). Krathwohl, et. al. (1964, pp. 54-56) recognized that not only are the affective and cognitive domains interrelated, but often a cognitive behavior may be used as a means to an affective behavior or even as a kind of prerequisite for the behavior and visa versa. For example, in the procedures of Carlson's (1975, 1978) studies on mainstreaming, the preprimary teachers were provided with knowledge or information (cognitive behaviors) related to interacting with and meeting the needs of young handicapped children and an opportunity to apply their learning (cognitive behavior) through actual experiences interacting with handicapped children in an integrated classroom setting. Prior to the acquisition of this knowledge and experience, the teachers were enthusiastic but somewhat skeptical (affective behavior) about their abilities to meet the needs of handicapped children in a regular

classroom. However, with increasing knowledge and experience, the teachers tended to develop more positive attitudes toward mainstreaming and their abilities to meet the needs of both the handicapped and typical children in a regular classroom setting.

The fact that increased knowledge and experience, as evidenced in the above example, does not always produce positive affective behaviors is reflected in Rokeach's (1956) argument that the degree of intensity and direction (positive to negative) of an attitude (affect) are directly related to the content of an associated cognitive object, plan, idea or phenomena. Krathwohl, et. al. (1964) also indicated that the relationship between affective and cognitive behaviors may vary according to the type and amount of learning experiences an individual has had. Therefore, one might conclude that if a teacher has had only content learning experiences without actual practical experience, the teacher may develop different attitudes toward mainstreaming than a teacher who has had both types of learning experiences or a teacher who has had neither type of learning experiences. However, the specific combination of and number of learning experiences which are necessary to produce a positive affect is unknown and may only be hypothesized without further investigation into the relationship between affective and cognitive behaviors.

Ecological Perspective

From an ecological perspective, teachers of young children are regarded as one component of a large educational system which provides support for the family ecosystem and society in general. Teachers provide input into the family ecosystem in the form of information about the child's growth and development and about the child's interpersonal relationships and interactions with other adults, children and objects within the educational system. As mentioned previously, a combination of factors contribute to a teacher's acquisition of knowledge and to the development of attitudes about the development and education of young children. A teacher who was reared and socialized in a family system and environment which was open to the acquisition of knowledge and to trying out "new" alternative forms of education may be more likely to desire to learn more about the individual and unique differences in children than a teacher who was reared and socialized in a relatively closed family system. Such teachers, those reared in an open system, would also be more likely to accept mainstreaming as a viable educational alternative for many young handicapped children, given the positive experiences and open views developed while growing up.

The family ecosystem acts as an interface between the child and his/her needs and the environment (e.g. the school, society, natural environment) in which the child resides. Therefore, both the educational system, including

teachers, staff and other parents and children, and the family ecosystem have a tremendous impact on the child's development and the types of opportunities that are made available to the child regarding the type of education and interactions the child will have with the environment.

The degree to which the educational system, in this case the teachers within the system, and the family ecosystem are open, closed or indifferent to the concept of mainstreaming young handicapped children into regular pre-primary educational programs depends on the attitudes and perceptions of these persons regarding the possible benefits and hazards such programs might present for the handicapped child, typical children, and themselves. If either group of persons' believe that the possible hazards of mainstreaming outweigh its benefits, one or both of the systems will either be totally closed to mainstreaming or attempt to regulate and control its implementation.

On the contrary, when both the educational and the family ecosystems believe that mainstreaming will provide benefits for all of the children and, possibly, themselves which outweigh the possible ill-effects of such a program, the systems will be open to mainstreaming and its implementation and will provide assistance to make such a program a success. Open systems provide greater opportunities for many handicapped children to function within a normalized environment and for typical children to become aware of and begin to accept individual differences among people. Open

systems also provide a situation through which teachers and parents can develop an even greater awareness of the similarities and differences, needs and abilities of all young children. PATHWAYS, one of the three types of programs participating in this study, has developed an ecosystem approach to the challenge of mainstreaming. PATHWAYS participation is voluntary on the part of teachers, centers, children, families and supporting agencies. Voluntary participation tends to contribute to openness in systems and also to the creation of the types of willing attitudes described above (Carlson, 1978).

Overview

Chapter II includes a review of literature pertinent to this study. Chapter III includes the selection of the sample, a description of the instruments, data collection procedures, the research designs and the procedures used for analysis of the data. A description of the subjects and related background factors is presented in Chapter IV. A description and discussion of the data and results are included in Chapter V. A summary, limitations, findings and implications for further research and instructional programs are presented in Chapter VI.

CHAPTER II

REVIEW OF LITERATURE

Four areas of literature pertinent to this study are presented. First, trends in the education of handicapped children are reviewed to provide a foundation for understanding how education for the handicapped has evolved in the United States. Historical pattern and judicial decisions that are shaping the parameters for mainstreaming young handicapped children are examined. Second, controversies surrounding mainstreaming indicate the problems involved in the implementation of mainstreaming. Third, attitudes of teachers toward mainstreaming are reviewed to show how teachers are thinking about the education of young children in integrated settings. Finally, attitude theory indicates that attitudes are developed through experience and the imitation of others. The review of attitude measurement shows that attitudes can be measured as opinions, which infer attitudes but do not predict overt behavior.

Trends in the Education of the Handicapped

Education of the handicapped child in regular public classrooms has been encouraged by educators for over one hundred years (Lance, 1976; Wynne, et. al., 1975). The trend during the 19th Century and for at least half of the 20th Century was to incarcerate the handicapped in institutions or to segregate them into large residential facilities thus excluding them from the mainstream of society

(Bricker, 1978; Lance, 1976; Heiny, 1971).

Two trends which began in the 1940's, and which continue to prevail among professionals, are: 1) "early identification of children with handicaps and developmental delays concurrent with immediate intervening programming and treatment" and 2) mainstreaming or integration, "meaning an effort to integrate, rather than segregate, exceptional youngsters with so-called normals in educational settings" (Abelson, 1976, p. 216). Elise Martens (1944) of the Office of Education wrote, "The concept of free public education for all children admits no exceptions," and "no State program of services for exceptional children is complete until it includes them all, with preference for none" (pp. 1, 13). During this period, organizations, such as The Council for Exceptional Children and the National Association for Gifted Children, supported the concept of full services to all children by writing model legislation (Weintraub, 1972) and promoting innovations in education for the exceptional child (Lance, 1976).

In the 1960's and 1970's, the movement towards equal education and full services for all children gained strength and momentum. In 1961, President Kennedy established the President's Committee on Mental Retardation to investigate special education programming and to determine the needs of the handicapped population in the United States.

In the early 1970's, two landmark court cases established precedents for laws mandating the right to a free

and public education for all handicapped children (Gearheart and Weishahn, 1976; Bricker, 1978; Abeson and Zettel, 1976). The first, The Pennsylvania Association for Retarded Children (PARC) v. the Commonwealth of Pennsylvania (1972), involved a class action suit charging the state with alleged failure "...to provide all of its school age children who were retarded with the right to a free public education" (Abeson and Zettel, 1976, p. 219). The court ordered that all retarded children between six and twenty-one years of age be provided with a free public education.

The decision of the court in the second case, Mills v. the Board of Education of the District of Columbia (1972), required public schools to provide a free education to all handicapped children, "...even if they did not fit the educational mold" (Gearheart and Weishahn, 1976, p. 15). The court further ruled "...that lack of funds is not an acceptable excuse for excluding handicapped children from public schools" (Bricker, 1978, p. 12).

Following these precedent setting cases, many Federal and state laws were enacted which solidified "the right to education" principle and encouraged the integration of handicapped children into the mainstream of public education. According to Abeson (1972), by 1972 nearly 70% of the states had adopted mandatory special education legislation with each state defining specific handicaps and the ages of children to which the laws applied. All but two states had passed similar legislation by 1976 (Bricker, 1978).

Michigan's Mandatory Special Education Act of 1971 (Public Act 198) requires appropriate education and services for all handicapped children from birth through age twenty-five. This mandate also requires child placement and services according to individual children's needs and provided specific guidelines intended to protect the rights of handicapped children and their parents (Scholl, 1973).

In addition to state mandates, three Federal laws have had an impact on educational opportunities provided for handicapped children. First, the Economic Opportunity Act Amendments of 1972 ensured that ten percent of the enrollment in Project Head Start classrooms would be handicapped. Second, Title IV-B of the Elementary and Secondary Education Act (Public Law 89-313) provided states with assistance in initiating educational programs for handicapped children (Ackerman and Moore, 1976). Finally, in 1975, the Education for All Handicapped Children Act (Public Law 94-142) was passed following a United States Congressional investigation into how handicapped children were being educated. The regulations of this law provided: 1) assurance that all handicapped children between three and twenty-one years have available to them a free appropriate public education; 2) assurance that the rights of special needs children and their parents are protected; 3) assistance to state and local governments to provide for the education of the handicapped; and 4) means to assess and evaluate the effectiveness of efforts to educate handicapped children (U.S.

Congressional and Administrative News, 1975; Federal Register, August, 1977). By fiscal year 1978, all handicapped children between ages three and eighteen were to have access to public education; by 1980, the age limit will be twenty-one (Bricker, 1978; Milbauer, 1977). Milbauer (1977) reported that two aspects of this law are of particular interest to regular classroom teachers: 1) that handicapped children will be placed in the "least restrictive environment" according to their individual needs and abilities and 2) that each handicapped child will have an "individualized educational plan" (IEP) written by a qualified school official, the child's teacher, and parents, and, if possible, by the child. Abeson, Bolick, and Hass (1975) indicated that giving parents a legal process through which they can protect their children's educational rights and demanding parental participation in the educational planning and placement of their children should improve the accountability of many public school systems.

To summarize, the education of handicapped children has progressed from isolation and incarceration in institutions to the provision of a free public education for all children under the law. Although vaguely supported in the 19th and early 20th Centuries, the concept of mainstreaming has only recently received substantial support from educators, parents, the courts, and state and Federal legislatures. Even though the laws have been passed mandating public education in the least restrictive environment for the handicapped,

controversies do exist as to how the laws shall be implemented and the effects mainstreaming has on teachers, children and families.

Controversies Surrounding Mainstreaming

Controversy among educators, parents and others on issues related to the relevance of mainstreaming are classified into the following five categories: 1) alternative educational environments; 2) assessment and labeling; 3) skepticism about the influence of integration on children and parents; 4) teacher qualifications; and 5) classroom ratio of handicapped children to non-handicapped children.

Alternative Educational Environments. Educational options available to young handicapped children include the child's home with parents providing instruction, segregated classrooms/education and complete integration (Wynne, et. al., 1975). In segregated classroom settings handicapped children are taught separately (or isolated) from their non-handicapped peers. In what is called "partial integration", young handicapped children are placed in both integrated and segregated settings. In this instance, the child may interact with typical peers for part of a day and receive specialized training related to his particular needs (e.g. mobility training for a blind child) during the other part of the day. The most controversial educational option now available to many young handicapped children seems to be complete integration. "The most common feature of this type of setting is that all of the children in the program are

involved in the same activities when they are in school, and that special resources (room, services, personnel) are available to all children in the program" (Wynne et. al., 1975, p. 20).

Valletutti (1969), Reger (1974) and others reported skeptical opinions about integration as a worthwhile educational placement for most handicapped children. Valletutti (1969) stated that:

Segregation without program is just as destructive as integration without understanding. Returning to an educational system which ignores the promise and possibility of the special class would disregard the imperatives of educational history, which have mandated an alternative to wide-range heterogeneity (p. 405).

Reger (1974) warned advocates of mainstreaming "...that to place all handicapped children in classes with non-handicapped children would put many handicapped children back where they were before the advent of special education" (p. 515).

Wynne et. al. (1975) listed other reservations people have about integration. The authors proposed that parents and educators feared that the handicapped child: 1) would be harassed, ignored or isolated by the class; 2) would not develop a healthy self-concept; 3) would have his special needs ignored by the teachers; 4) might develop negative attitudes about himself and "normal" children because of his mainstreaming experiences.

Martin (1976) provided two reasons why a controversy

exists about which educational model is better--segregation or integration--in the following statement:

Our present thinking about education for handicapped and nonhandicapped children may be based on two false assumptions: A) that handicapped children are a small discrete population, not central to the school's concerns, and B) that the learning problems they present are unique and not relevant to regular education (p. 5).

According to Bricker (1978), Martin's statement highlighted the belief that, in the case of most young children, one cannot categorize them according to handicapped or nonhandicapped because of the differences in abilities and skills all young children are developing between birth and age six.

Weininger (1973) indicated that in the special class, the child's specific disability is usually of prime concern, not the whole child. Weininger stated that:

The child must be seen as a whole functioning individual with unique needs (p. 139)....We need to recognize...that none of his characteristics can be dealt with in isolation--at school, at home, or in the larger community (p. 140)....Unless we want to produce adults who cannot function in the world, it is not wise to try to educate children apart from the world they must inhabit (143).

This statement reflected the primary tenet of the concept of normalization as described by Wolfensberger (1972). The concept of normalization posits that children should be allowed to live and be educated in the most "normal-like" environment possible, implying that all children who have the ability to cope and learn in a regular school classroom should be placed there (Wolfensberger, 1972; Bricker and

Bricker, 1978; Weininger, 1973).

The proponents of integration not only believe that most handicapped children can cope with and learn in a regular class, but also contend that both handicapped children, nonhandicapped children, teachers, and parents can benefit in many ways from integration (Carlson, 1978; Bricker and Bricker, 1978; Guralnick, 1978; Wynne et.al., 1975; Meisel, 1978; Planning Staff, ODC, Bureau of Education for the Handicapped, 1976).

Assessment and Labeling. Two aspects involved in the mainstreaming controversy are related to the assessment tools and procedures used to identify handicapping conditions and the effect labeling young children as "handicapped" has on their lives. Siegel (1969) stated that many young children are inadequately diagnosed and treated, which often tends to cause their problems to intensify in magnitude later in life. Bricker (1978) stated, "The inability of diagnosticians to predict future performance of the young child based on the child's current repertoire is not encouraging" (p. 9). McCall, Hogarty, and Hurlburt (1972) and Bricker (1978) suggested that intelligence tests and social maturity instruments used by diagnosticians today are almost useless as predictors of the young handicapped child's future intellectual or social-vocational performance. These findings seem to warn educators against basing the planning of programs and educational placement for young handicapped children strictly on the results obtained from such diagnostic

instruments.

A second problem associated with the assessment of children is that "...there are too few people trained in the process of identification, diagnosis and assessment of children under six, particularly those with handicapping conditions" (Wynne, et. al., 1975, p. 55). Educators who favor integration generally use some standardized measurements to estimate a child's level of functioning, but also employ more informal assessment procedures (e.g. checklists of behaviors, observation) as collaborative evidence to describe the child's repertoire of skills, behaviors, physical, socio-emotional and cognitive development (Carlson, 1978; Wynne, et. al., 1975). Martin (1978) summarized many educators' concerns about assessment (or the lack of assessment) by cautioning that

...there is all too frequently a failure to evaluate carefully the child's progress toward specific educational objectives so that we will have to rely, as in the past, on our subjective judgements as to whether or not the child is, in fact, better off in mainstreamed settings (p. 70).

Martin (1978) also suggested that any assessment used to determine a child's level of development must include all aspects of development, including socio-emotional development, since many of the positive aspects of mainstreaming are based within this area.

The use of labels to describe handicapped children being mainstreamed into regular classrooms has been shown to have a detrimental effect on the expectations of teachers

for the abilities of children to perform in the classroom. Gillung and Rucker (1977) compared teacher expectations for handicapped children who are labeled with the expectations of teachers for children with identical behaviors who are not labeled. The respondents were asked to determine what the most appropriate educational placement would be for each child when they were presented with either a description of the child's behaviors with a label attached or without a label attached. The results indicated that both special education and regular classroom teachers tend to have lower expectations for handicapped children with labels and place these children more often in special class situations. Gillung and Rucker (1977) concluded that behavioral descriptions of a child without a label are particularly important when considering the placement of handicapped children into mainstreamed classes.

Lilly's (1975) article on the use of labels to describe handicapped children supported Gillung and Rucker's (1977) conclusions. Lilly stressed that the use of labels:

- 1) may cause instructional problems for the handicapped child;
- 2) enables educators to "...overgeneralize concerning individual children" (p. 168);
- 3) identifies the cause of repeated classroom failures as problems in the child rather than in the selected method of teaching or some other cause; and
- 4) often cause embarrassment to the children because the labels are inaccurate.

Lilly (1975) suggested that children's problems should be described as specific

observable behaviors. Furthermore, Lilly indicated that teachers should develop specific, achievable objectives for the handicapped child and teach to those objectives; provide activities directed toward increasing the child's self-confidence; and evaluate student progress and performance in terms of growth from a previously identified level of success, not on the basis of other students' performance.

Skepticism about the Influence of Integration on Children and Parents. The primary concern of most people when discussing integration is how it will affect handicapped and typical children and their parents. Many people fear that handicapped children in integrated classes: 1) will become isolated from the other children (Wynne et. al., 1975; Carlson, 1978; Bricker, 1978) and 2) will be bullied and harassed by other children (Yaffe, 1979; Weininger, 1973; Syracuse University, 1974; MacMillan, et. al., 1974). Evidence of isolation and harrassment was presented in Sheare's (1974) review of the literature related to the acceptance of mentally retarded students in elementary and secondary settings, but few studies support the view that such behaviors occur at the pre-school level. Results of Wynne et. al.'s (1975) study suggested that teachers did not believe small children were without biases, "...whether inherently or because of cues picked up from their environment, and they must be taught to accept the deviant behaviors and/or appearances of others" (pp. 59-60). MacMillan et al. (1974) pointed out that peer rejection was most often viewed as

resulting from the negative and/or aggressive behaviors exhibited by the handicapped children. Kennedy and Bruininks (1974) found that preprimary-aged children generally have less negative attitudes toward hearing impaired children than do older children.

Weininger (1973) noted that most young children are generally acceptant of handicapped peers. Caldwell (1973) supports this observation. She says that:

...Young children are not so prone to isolate and segregate on the basis of any characteristic, whether it's the developmental level that a child has reached, his skin color, behavior patterns, or whatever. They have much more of the ability to accept one another than do older children and adults (p. 3).

Yaffe (1979), Carlson (1978), Guralnick (1978), and Bricker (1978) indicated that both handicapped and typical children benefit emotionally and socially in an integrated setting. Yaffe (1979) also reported that emotionally disturbed children gained in their ability to cope with frustration and tended to act and appear more normal in their interactions with normal peers.

Bricker and Bricker (1978) found that handicapped children acquire new responses from observing and imitating "normal" children's behavior. The authors suggested that most children selectively imitated each other's behavior most often during play.

Guralnick (1978) observed

...No differences in constructiveness or appropriateness of normal children's

play when playing in a group with other normal children or in a group of children with widely varying developmental levels (p. 138).

Results reported from the evaluation of the Handicapped Children's Early Education Program's (HCEEP) indicated that overall, the HCEEP projects had a positive impact on handicapped children's growth in the areas of personal-social and cognitive development, adaptive behavior, and communication skills. The area of greatest growth was in the personal-social domain which included: 1) self concept, 2) social role, 3) expressing emotions/affect, 4) coping, 5) moral development, 6) adult interactions, and 7) peer interactions (Planning Staff, ODC, Bureau of Education for the Handicapped, 1976).

Carlson (1978) reported that all handicapped children in the PATHWAYS Project centers showed improvement in emotional and social development. Carlson said that the "... more severely handicapped children showed greater gains than mild to moderately disabled children in adjustment to school, interactions with teachers, and inner control/emotional development" (p. 77). The mild to moderately handicapped showed more significant gains than severely disabled children in the areas of self concept and interactions with other children. Carlson (1978) also indicated that both handicapped and typical children benefitted from their interactions in a regular class setting.

Parents according to Barnes' (1975), suggested that their handicapped children were more verbal, independent and

competitive as a result of their integration experiences. They also perceived that their children learned from and enjoyed interacting with typical children.

Zigler and Hambleton (1976) conducted an observational study of two classes of young trainable mentally retarded (TMR) children who were moved from a special education setting to a regular public school. The children's interactions with typical children were observed in nonacademic (free play, playground) situations. A behavioral checklist was used containing thirteen categories of play ranging from solitary noninvolvement to cooperative play. The results indicated that: 1) nonretarded children do not single out and deliberately victimize retarded children; 2) interactions involving only retarded children were mainly positive; 3) placement of retarded children into regular classes is effective in promoting reciprocal interactions between typical and retarded children; and 4) retarded children play, converse, help, intervene and comfort each other although less frequently than typical children in similar situations. Spollen and Ballif (1971) also concluded that regular classroom placement was effective for these children but warned that a great deal of attention to program and activity design was needed in order to obtain such an effect.

Teacher Qualifications. More than 500,000 teachers are needed to teach handicapped children in the United States according to 1976 figures released by the Bureau of Education

for the Handicapped, Division of Personnel Preparation (Ackerman and Moore, 1976). Of the handicapped children needing services, approximately 18% were estimated to be preschool-aged. Ackerman and Moore (1976), using these figures, estimated that there were an estimated total of 90,000 teachers needed to teach handicapped children at the pre-primary level.

The fact that teacher training and certification in almost all states is preparation for teaching typical children and, therefore, does not provide the knowledge base for regular classroom teachers to work with handicapped children is listed by some educators as an obstacle to successful implementation of mainstreaming (Ackerman and Moore, 1976; Warnock, 1976; Martin, 1978). The results of Yaffe's (1979) study proposed regular class teachers believed that although there were difficulties involved in integrating handicapped children, many children (e.g. hearing impaired, legally blind, orthopedically impaired) could participate in regular classes with relative ease. However, most teachers also believed newer teachers could cope with integration more easily than teachers who had been teaching for a long time because the new teachers expected to have to integrate and had less well established teaching styles. The teachers in the Yaffe study expressed a desire for inservice training related to meeting the unique needs of the handicapped and assistance in planning for special children.

Carlson (1975, 1978) found that preschool teachers who

had been trained in Early Childhood Education were initially apprehensive about accepting a handicapped child into their classrooms because of their lack of knowledge and experience in working with such children. When offered support and in-service training, however, these teachers were more willing to attempt integration. Teachers with one year of experience working with integrated handicapped children felt fairly secure in their ability to interact effectively with the handicapped children and still meet the needs of the entire class.

Klein (1975) reported that when the Economic Opportunity Amendments of 1972 were passed requiring that ten percent of Project Head Start's enrollment be handicapped, Head Start teachers had many reservations and anxieties. Klein claims that the teachers worried about: 1) their ability to meet the need of handicapped children; 2) acceptance of special children by their typical peers, and 3) having an inadequate base of knowledge such that they would have to get degrees in special education. The Head Start teachers said, after mainstreaming was initiated, that attending lectures and workshops sponsored by national organizations and agencies such as the National Easter Seal Society had helped them accept integration and learn about the characteristics and needs of handicapped children. In addition to in-service training Klein stated,

By utilizing and building on knowledge of young children and child development, teachers are able to sort out things that

are related to the handicap and behaviors that pertain to other aspects of the child's development (pp. 321-322).

The controversy related to whether regular or special education teachers are best qualified to teach handicapped children also includes the teacher's ability to teach appropriate behaviors and needed skills to the handicapped child. Considering the type of training special education teachers receive (e.g. related to specific disabilities), educators in the 19th Century and most of the 20th Century believed handicapped children could best be taught needed skills and appropriate behaviors in self-contained, segregated classrooms (Ackerman and Moore, 1976; Bricker, 1978). This attitude continues to prevail among some educators (Lance, 1976).

Presenting an alternative point of view, Wynne et al. (1975) stated,

...the teacher working with only 'special' children may lose perspective on what is and is not appropriate behavior and skill achievement for a given age. Mainstreaming tends to keep teachers in touch with what normal two-to-five year old children are doing (p. 58).

To summarize, in 1976, approximately one hundred thousand preprimary teachers were needed to teach young handicapped children (Ackerman and Moore, 1976). However, the present system used in colleges and universities to train and certify teachers to teach at the preprimary level does not provide the teacher trainees with knowledge or experiences related to interacting with and planning for meeting the needs of handicapped children. This fact is viewed by

many educators as an obstacle to the successful implementation of mainstreaming at the preprimary level (Ackerman and Moore, 1976; Warnock, 1976; Martin, 1978).

Several educators have reported that the lack of knowledge and experience of regular classroom teachers related to interacting with and planning for handicapped are at least partially responsible for teachers expressing skeptical or hesitant attitudes toward accepting such a child into their classes (Carlson, 1978; Klein, 1975; Yaffe, 1979). Such knowledge and experience, according to Wynne, et al., (1975), is beneficial for the teachers, the handicapped and the typical children in the classroom as teachers become more aware of individual differences in behaviors and skills among the children.

Classroom Ratio of Handicapped Children to Non-handicapped Children. Strategies for the implementation of the law at the preprimary level also is surrounded by controversy (Meisels, 1977; Carlson, in press). Specifically, this issue addresses the problem of identifying an "ideal" ratio of handicapped children to non-handicapped children in the regular classroom. Meisels (1978) indicated that "...there is probably no 'ideal' ratio of classroom composition" (p. 5). Therefore, this question may be answerable only when the previously identified issues regarding mainstreaming are resolved (e.g. most appropriate educational environment; assessment and labeling; teacher qualifications; effects of mainstreaming on children and parents; amount and

kind of support teachers need to mainstream a child). Currently, early childhood education programs throughout the United States are using different strategies to resolve this ratio issue. Each program tends to choose the ratio which best meets its own particular program needs.

The Equal Opportunity Acts of 1972 mandated that ten percent of the children in Head Start classrooms be handicapped thus resolving the issue of how many handicapped children per classroom would be adequate to meet Head Start objectives for mainstreaming. The PATHWAYS Project at Michigan State University has a ratio similar to that of Head Start. The rationale of the PATHWAYS Project supports the hypothesis that the integration of one or possibly two young handicapped children (in classrooms with highly trained and experienced teachers) is the most appropriate strategy for implementing a mainstreaming program. Carlson (in press) indicated that the rationale for such a classroom ratio is founded on the belief that:

...Individuals. specifically teachers, who are learning about aspects of handicapping conditions can understand and appreciate similarities and differences more easily and thoroughly when their learning experiences are related to only one child. When they learn how to design, implement and evaluate a program, then they can go beyond the stereotype. Then they can overlook the label. Then they can generalize. For many individuals who are asked to take responsibility for a child considered to be handicapped, it is much easier if that child can first be seen as a unique and special person instead of a child who is 'blind' or 'retarded' (pp. 4&5).

The beliefs of Head Start and the PATHWAYS Project regarding what constitutes an appropriate handicapped child to typical child classroom ratio are not the same as the beliefs of many other early childhood education programs in this country. Programs such as High Scope, in Ypsilanti, Michigan, maintain approximately a one to one ratio of handicapped to non-handicapped children. Other programs such as the Precise Early Education of Children (PEECH) Project, located on the University of Illinois Champaign-Urbana campuses, serve approximately a two to one ratio of handicapped to non-handicapped children (Karnes and Lee, 1979). Programs such as the PEECH Project are engaged in what is commonly referred to as "reverse mainstreaming". These programs integrate non-handicapped children into programs originally designed for the handicapped (Bricker, 1978; Carlson, in press; Meisels, 1977; Wynne, et al., 1975).

The inclusion of a higher classroom ratio for mainstreaming is supported by Meisels (1977) who assumes

...that the objectives of mainstreaming probably cannot be met if only one special needs child is enrolled in a regular classroom. This child eventually may feel isolated and segregated from the group (p. 6).

Wynne, et al., (1975) concluded from their review of mainstreaming programs and literature that "reverse mainstreaming" programs may "...be more likely to provide design features that would account for the special needs of exceptional children" (p. 21).

Given the wide variety of philosophies underlying early

childhood programs throughout the United States; the heterogeneity of classroom populations; the wide range of individual differences among teachers and children; and a diversity in the amount and kind of technical assistance available for teachers in various communities, it may be futile to attempt to define an "ideal" handicapped to non-handicapped child ratio for mainstreamed preprimary programs. Many advocates of the concept of mainstreaming seem to agree that the best ratio is that which suits the needs and capabilities of the philosophy, staff and children of a program. The general trend is an individualized determination of classroom ratio. The criteria used for determining an appropriate classroom ratio are similar to those used in the selection of appropriate educational placements for handicapped children based on their individual needs and capabilities.

Teachers' Attitudes Toward Mainstreaming

Several authors and researchers involved in investigations related to integration or mainstreaming support Klein's (1975) statement that, "The teacher's attitude toward a handicapped child is the key to having the child accepted by the group" (p. 322). Since 1972, many reports and research studies have been prepared and conducted to determine the effectiveness of services provided to handicapped children in Head Start (Lapides, 1973; Syracuse University, 1974; Head Start Services to Handicapped Children, 1974). From these reports have come an overall view of Head Start's

mainstreaming efforts and some general conclusions concerning the attitudes of Head Start staff toward mainstreaming. Conclusions stated in the reports reviewed indicated that: 1) the development of positive attitudes among teachers responsible for handicapped children are probably of greater importance to the in-service training of Head Start staffs than are specific skills, technologies, or the use of special materials (Syracuse University, 1974); 2) although Head Start teachers had many reservations and questions when they first heard about integration, they have developed positive attitudes toward integration if provided with in-service training and information about handicapping conditions (Head Start Services to Handicapped Children, 1974, Klein, 1975); and 3) Head Start teachers believed integration is beneficial for both handicapped and non-handicapped children (Klein, 1975; Head Start Services to Handicapped Children, 1974; Lapidès, 1973).

However, Ensher, Blatt and Winschell (1977), indicated that Head Start teachers in Michigan, who were normally confident in their abilities, had grave doubts about their ability to serve severely handicapped children (e.g. blind, deaf, severely retarded, and children with gross motor development problems). Ensher et al. (1977) also reported that Head Start teachers were dissatisfied due to lack of support and special in-service training.

Carlson (1975) conducted a pilot study of the attitudes of teachers and support personnel toward integrating

preschool handicapped children into Michigan State University Laboratory Child Care Centers. The questionnaire Carlson and Wilson (1977) developed was designed to measure positive and negative changes in the attitudes of teachers and support staff in integrated classrooms for periods of one term (9-10 weeks) over a two-year span of time. An analysis of the data suggested that: 1) the attitudes of teachers toward integration, the handicapped child and their ability to positively interact with the handicapped child increased over time, from fear and hesitancy to positive willingness to interact with the child and a desire for further experience in integrated classrooms and 2) the children integrated into each classroom tended to adapt very well to the "normal" children and to the regular classroom program within a one-to-two month period.

As part of the PATHWAYS Project evaluation component, Carlson (1978) conducted a study on the attitudes of individuals toward integration at the preschool education level. The investigation consisted of a survey of a total sample of 104 parents, teachers, PATHWAYS advisory council members, special education service providers and supporters, and citizens-at-large to determine their attitudes toward integration. Responses received on the pilot Integration Opinionnaire reflected teacher attitudes similar to those found in the 1975 study. More specifically, the survey findings indicated that: 1) teachers who have had experience working in an integrated setting where external support was

provided had the most positive attitudes toward the integration of young handicapped children into regular preschool classes; 2) teachers, more than any other group surveyed, believed that the attitudes of people toward the handicapped can be enhanced by providing opportunities for young handicapped and typical children to interact in a natural, matter-of-fact way in an integrated classroom; and 3) teachers believed the integration of handicapped children into regular preprimary programs has a positive impact on all children -- handicapped and non-handicapped. Teachers strongly disagree, more than other groups, with opinion statements related to: a) the inability of regular teachers to meet the needs of handicapped children and provide them with a total educational experience, b) the inability of special needs and typical children to make friends and have positive interactions, c) mainstreaming being a frustrating experience for disabled children because they may not be able to do the things other children do, and d) that handicapped children are disruptive and undesirable models for "normal" children.

Relative to the participation of teachers in PATHWAYS integration efforts, survey results indicated that, by the end of the 1977-1978 school year, the teachers were "somewhat satisfied" with their participation in the project and almost totally satisfied with the "overall support of families" and their "relationships with the case facilitators" (liaison and support person for teachers and families). The teachers indicated that their initial reactions to working

with a handicapped child were neither secure nor apprehensive but might be classified as "neutral". When asked six months later how they felt about their ability to meet the needs of the handicapped child in their classroom, the majority of teachers indicated that they felt "quite secure". At the end of the year, "...all teachers were very willing to work with handicapped children in integrated programs in the future" (Carlson, 1978, p. 81) under certain conditions. The conditions for accepting a handicapped child into their classrooms were: 1) consultant support, 2) limited class size, 3) adequate staff and equipment, 4) adequate time to adjust and adapt to increased responsibilities incurred as a result of integrating a child into the classroom.

Several investigators (Guralnick, 1978; Johnston, 1972; Galloway and Chandler, 1978; Condell and Tonn, 1965) have provided support for many aspects of Carlson's (1975, 1978) findings. Condell and Tonn (1965) conducted a study regarding teachers' willingness to teach retarded children. The results of their investigation showed that as teachers gained experience working with retarded children, their willingness to teach such children increased. Guralnick (1978) claimed in his study of mainstreaming efforts at the Experimental Preschool of the National Children's Center that: 1) "...a significant independent, positive contribution to the development of handicapped preschool children can be achieved through appropriate involvement in integrated programs" (p. 132) and 2) teachers believed both

handicapped and normal children benefit from their interactions in a regular preschool program.

Directly related to the attitudes of teachers toward integration is their willingness to accept children with a variety of handicapping conditions into their classrooms. Lilly (1975) stated that "...the success or failure of mainstreaming will depend primarily on the willingness and ability of classroom teachers to make it work" (p. 168).

Gorelick (1973) conducted a questionnaire survey of the willingness of directors in over 200 private nursery schools to accept referrals of children with handicaps. Gorelick also inquired about the nature of the handicaps the directors would be willing to accommodate in their preschool programs. Gorelick found that 83 percent of the respondents indicated a willingness to accept referrals of handicapped children. The types of handicaps indicated as most acceptable were: 1) partially deaf; 2) partially blind; and 3) mildly mentally retarded. The next most acceptable handicaps were: 1) orthopedically handicapped; 2) mild cerebral palsy; 3) epilepsy; 4) emotional disturbance; and 5) Down's Syndrome. The least acceptable handicapping conditions were: 1) profound deafness; 2) autism; 3) total blindness; 4) severe cerebral palsy; and 5) severe mental retardation. Reasons given by respondents who would not accept referrals were: 1) lack of staff with special training; 2) inappropriate facilities; and 3) lack of appropriate license. Gorelick noted that the

third reason given -- lack of appropriate license -- is not really a valid excuse for not accepting a handicapped child into a program. It is, Gorelick indicated, a misinterpretation of the law by the center directors.

Abelson (1976), in association with the Early Intervention Project at the University of Michigan, measured the readiness of preschool directors and teachers to mainstream handicapped children. Abelson's methodology included observations in 45 preschools in the county, interviews with the director of each program, and completion of a questionnaire by the director of the center. The directors of all 45 preschools indicated that they would be willing to accept handicapped children into their programs. When asked to indicate which handicaps would be acceptable, the most highly accepted handicaps were: 1) speech delay; 2) hard of hearing; 3) mildly mentally retarded; and 4) partially sighted. The least acceptable handicaps were 1) confined to a wheelchair; 2) upper extremity problems that would interfere with feeding and dressing; 3) blindness; 4) nonambulatory but able to crawl and sit in a chair; and 5) cardiac and respiratory conditions such as asthma where the level of the child's activity would have to be monitored. In response to the question, "Would you be willing to accept a child who is not yet toilet trained?", half of the respondents (22) said "yes" on the condition that there was a possibility of training the child in the program, and half of the respondents (23) said "no". Twenty-five of forty-one centers in

which interviews were conducted indicated that they had previously accepted handicapped children into their programs.

In summary, the studies available suggest that teachers who participate in mainstreamed preprimary programs generally have positive attitudes toward handicapped children and integration. It was noted, however, that the initial reactions of teachers to integration were somewhat hesitant but became more positive as they gained information about and experience working with special needs children. The willingness of teachers to accept handicapped children into their classrooms increased significantly when they were promised external support from persons trained in special education. The teachers in each of the studies reviewed believed that both handicapped and non-handicapped children benefit from an integrated preschool experience.

Reports related to the willingness of child care center directors to accept handicapped children into their programs indicated an extremely high rate of positive responses. However, when the directors were asked to indicate which handicaps were acceptable, they unanimously selected those handicaps seen as "mild" as most acceptable and those handicaps perceived as "severe" as least acceptable.

These data provide preliminary indications that handicapped children would be accepted by regular child care center directors and teachers. Further investigations into the areas of the attitudes of preprimary teachers toward mainstreaming are warranted in order to substantiate or

refute these findings.

Theory and Measurement of Attitudes

Theory. The study of human attitudes has been investigated and reviewed in the literature for more than half a century. In the past fifty years, several definitions of "attitude" have been posited (Rokeach, 1968; Thurstone, 1967; Shaw and Wright, 1967). Rokeach (1968) defined an attitude as "...an organization of several beliefs focused on a specific object (physical or social, concrete or abstract) or situation, predisposing one to respond in some preferential manner" (p. 16). Thurstone (1967a) suggested that an attitude is "...the affect for or against a psychological object" (p. 20). Shaw and Wright (1967) intimate that attitudes are "...the end products of the socialization process, (which) significantly influence man's responses to cultural products, to other persons, and to groups of persons" (p. 1). Each of the above definitions, including Allport's (1935) definition (presented in the Conceptual Orientation), have at least one common characteristic. They all suggest that an attitude predisposes man "...to respond to social objects which, in interaction with situational and other dispositional variables, guides and directs the overt behavior of the individual" (Shaw and Wright, 1967, p. 2).

Allport (1935) identified the following four conditions for the building of attitudes which have served as a basis for most of the theory and research in the area. First,

attitudes are formed through the integration of numerous experiences involving similar sensations, feelings or perceptions. Second, experience is supplemented with the segregation of behavioral patterns and conceptual systems which provide the individual with attitudes appropriate to the "...direction of his adaptive conduct" (Allport, 1935, p. 810). The third source of attitudes is a person's response to a traumatic experience. Finally, attitudes are formed through the imitation of significant others in an individual's life, such as parents, teachers and peers. These conditions for the formation of attitudes imply the multi-dimensional characteristics of this concept which have caused considerable controversy as to their nature and definition.

The characteristics of attitudes have been described throughout research and theory literature. Attitudes, according to Shaw and Wright's (1967) review of literature on attitude theory, "...are based upon evaluative concepts regarding characteristics of the referent object and give rise to motivated behavior" (p. 6); vary in quality and intensity on a continuum from positive to negative; are learned, rather than innate or a function of maturation; have specific social referents or classes; are inter-related to one another in varying degrees; and are fairly stable and enduring in nature.

An attitude is related to, but is not, a belief or an opinion. An attitude consists of numerous beliefs which

may be positive, neutral or negative according to the source of their information (Thurstone, 1967). Beliefs are components of and are instrumental in the formation of attitudes. Opinions are verbal expressions or indexes of attitudes (Thurstone, 1967a). Thurstone (1967a) provided clarification of the difference between the two concepts, opinion and attitude. Thurstone (1967a) stated that

The concept of attitude denotes the sum total of man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats, and convictions about any specified topic (p. 77).

An opinion, on the other hand, is merely a verbal symbol of an attitude. The cognitive component of attitudes renders them difficult or impossible to classify and measure (Allport, 1935). It is an individual's verbal account (opinion) of his attitude that can be classified and measured along a continuum from positive to negative (Thurstone, 1967a, 1967b; Allport, 1935).

Traditionally, individuals who express negative opinions about what they believe are said to maintain stereotyped or prejudiced attitudes toward some object or situation. This is particularly true with regard to highly controversial subjects such as racial preferences or sexual equality (Thurstone, 1967a). In actuality, stereotyped or prejudiced attitudes may exist on either end of the continuum. These attitudes are characterized as inflexible, stable, and intensely emotional such that they resist change and often distort an individual's perception and judgement

of a situation (Allport, 1935). Thurstone's (1928; cited in Thurstone, 1967a) study of the attitudes of Americans toward different nationalities reflected the characteristics of prejudice. The preference attitudes of Americans were either strongly affirmative or negative toward different nationalities. The attitudes were also homogeneous from coast to coast.

Not all attitudes, however, can be classified as extremely positive or negative. Extreme attitudes, which are formed as a result of socialization during early childhood or youth during which time stereotyped or "ready-made" attitudes are handed-down by one's parents or result from numerous experiences involving an object, evoke the same response over a period of time (Allport, 1935; Shaw and Wright, 1967). Some attitudes are classified as neutral. When an individual has had little or no experience concerning an object or situation, the attitude of the individual may be "neutral" toward the object. The individual does not believe or have an opinion one way or another (positively or negatively) about the object or situation.

In addition to classifying attitudes according to their intensity, Allport (1935) contended that the attitudes of people may also be either public or private. Allport (1935) stated that "Most people reserve for themselves the right to say one thing and think another" (p. 824). What a person says is often his "public" attitude (opinion) which is socially determined and most readily disclosed. Private

attitudes reflect what a person thinks. These attitudes are usually only discovered after long acquaintanceship or when a person candidly states his opinion on a subject (Allport, 1935).

A person's opinions and thoughts may be the same, but are most often contradictory. Schanck (1932; cited in Allport, 1935) surveyed a population in an attempt to determine their public and private attitudes toward institutional practices and policies. The results indicated that the private and public attitudes of individuals are often quite opposed to one another depending on whether the expressed opinions are given in the context of group membership or as a private individual. As members of a group, attitude responses tended to be homogeneous toward their institution's practices and policies. Private attitudes were often moderate and variable and tended to resemble the attitudes of the general public.

Measurement. The measurement of the attitudes of individuals toward some object, idea, event, form of conduct or principle is the most common form of research in the behavioral sciences (Allport, 1935; Fishbein, 1967). According to Thurstone (1967a), the concept of attitude "...denotes the sum total of man's inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats and convictions about any specific topic" (p. 77). Attitude measurements, however, do not predict the overt actions of a person or group of people. They are merely indicators of

what people say they believe to be true about some designated topic (Fishbein, 1967).

Allport (1935) suggested that due to the affective nature of attitudes, they are impossible to categorize and measure. However, opinions, verbal expressions or indexes of attitudes, can be categorized and measured along a continuum from positive to negative (Thurstone, 1967b). Therefore, what investigators commonly refer to as attitude measures are in actuality opinion measures from which attitudes are inferred.

The most frequently used methods of measuring attitudes require subjects to indicate their agreement or disagreement with a set of opinion statements about something (Thurstone, 1967a; Likert, 1967). The "Likert-type" method of measuring attitudes requires subjects to rate opinion statements on a hierarchy scale (e.g. on a scale from one to five with one indicating that the subject "strongly agrees" with the statement and five indicating that the subject "strongly disagrees" with the statement) (Likert, 1967). Allport (1935) indicated that the Likert-type "...a priori method of scoring in arbitrary units (one to five) when applied to attitude scales often yields results as reliable as psychophysical scores themselves. The agreement between the two methods is nearly .90" (p. 831). Therefore, the measurement of attitudes can be accomplished fairly reliably by having individuals rate opinion statements related to some idea, object, principle, event or

action by using a Likert-type scale. Likert (1967) and Thurstone (1967b) suggested the following seven steps to be used in constructing a reliable attitude scale: 1) specify the attitude variable(s) to be measured; 2) collect a wide variety of opinion statements of desired behaviors related to the variable(s); 3) state and edit each statement so the wording is clear, concise and straightforward; 4) calculate or assign a specific numerical value to each statement; 5) pilot test items and eliminate some items by the criterion of ambiguity or irrelevance through the use of an item analysis; 6) select a shorter list of twenty to thirty opinion statements which can be evenly graduated on the scale; 7) test the internal consistency of the scale by comparing the response reactions of subjects that constitute one extreme of the scale with the response reactions of the group constituting the other extreme of the scale.

The reasons why an item (statement) may be considered to be ambiguous, irrelevant or undifferentiating were outlined by Likert (1967, p. 92). The reasons provided by Likert were that the: 1) statement may involve a different issue from the one involved in the rest of the statements; 2) statement may be responded to in the same way by practically the entire group; 3) statement may be misunderstood by members of the group because of the way it was stated; and 4) statement may concern a fact which individuals who fall at different points on the attitude continuum will be equally liable to accept or reject.

The two attitude measures used in this study were of the Likert-type discussed in this section. The Integration Opinionnaire (Carlson, et al., 1978) was developed and tested in the manner suggested by Likert (1967) and Thurstone (1967b). The "willingness to accept handicapped children" scale was developed in a similar manner to reflect the degree to which teachers were willing to accept mildly, moderately or severely handicapped children if offered four different types of support from their center administration. This measure was repeated for each type of severity of handicap in the final three questions of the Background and Experience Information questionnaire (Appendix A).

CHAPTER III

PROCEDURES

This chapter includes five areas: selection of the subjects, description of the instruments, data collection, research design and data analysis.

Selection of Subjects

The sample of teachers who participated in this study included teachers employed in two types of child care programs which were mainstreaming young handicapped children (PATHWAYS and Head Start) as well as teachers employed in Community non-mainstreamed child care programs. Three reasons underlie the selection of teachers from two types of mainstreamed programs for comparison with non-mainstreamed programs. First, both the PATHWAYS and Head Start programs are federally funded projects which mainstream young handicapped children, but each has basically different reasons why they are involved in mainstreaming. PATHWAYS is a federally funded demonstration project under grant from the Bureau of Education for the Handicapped. The people who have become involved in this project have done so on a voluntary basis in accordance with the guidelines under which it operates. Several of these guidelines distinguish the PATHWAYS project from Head Start regarding the procedures for placement of a handicapped child into a classroom:

- 1) generally, one, and no more than two, "special" children are placed in any one classroom;
- 2) before a child who is

referred for placement or whose parents request placement is accepted into a classroom, a project staff member (case facilitator) and the child's parents review and observe the child's characteristics to determine if he/she is a "likely candidate" for integration and to determine if a mainstreamed experience would be beneficial for the child at that time. If they decide in the affirmative, then consideration is given to what kind of a program/classroom environment could best serve or meet that child's needs and abilities; 3) a child is not placed in a classroom unless the teacher is ready, willing to accept the child, and competent in his/her ability to work with, interact with and meet the needs of this child as well as the needs of the other children in the class. The teachers have a free-choice of whether or not to accept a child when asked; and 4) child placement and programming are matched and molded (fit) to meet the individual needs of the child. Special children are only placed in classes in which the project staff and parents believe the environment as well as the teacher's abilities and personality fit the needs of the special child.

Alternately, Head Start is a federally funded project which is mandated, under law, to maintain at least a one to ten ratio (10%) of handicapped to non-handicapped children in their classrooms. Head Start programs must accept and place all handicapped children (specified within the mandate) into their programs. There is very little if any chance to match child and program, and Head Start teachers

must accept the children who are recommended for placement whether they are ready or willing to accept such a child. Furthermore, all of the non-handicapped children who are accepted into Head Start programs are generally from a lower socio-economic level and class than are the children who attend PATHWAYS centers. Thus, the environmental stimulation and experiences afforded these children differ significantly.

The teachers who participated in the study who were employed in community non-mainstreamed child care centers were believed to be representative of the majority of regular preprimary teachers in the cities from which the sample was selected. It was believed that these teachers had very little knowledge about or experience with mainstreaming and would, therefore, serve as an adequate (control) group for comparison with teachers who were presently mainstreaming or had previously had experience and knowledge about mainstreaming.

Two other criteria, other than type of center, were used as a basis for selection of the sample: 1) the child care centers must be licensed by the State of Michigan; and 2) the teachers must be adults who are or have been responsible for providing direct care, supervision and guidance to children between two and six years of age. The centers were located in cities with population sizes between 50,000 and 197,000 people (Verway, 1978).

The total sample consisted of seventy-nine preprimary

teachers. The entire population of teachers employed in mainstreamed PATHWAYS classrooms was sampled because:

1) PATHWAYS has outreach programs located in only two of the five cities from which the entire sample was being drawn and 2) the total population of PATHWAYS teachers consisted of only fifty teachers who were eligible to participate in the study, thus limiting the possibility of obtaining a large enough sample from this group if only a percentage of the population were sampled. Contact with the teachers was made through the center or program directors. Thirty responses were received from a survey of the total population of PATHWAYS teachers.

The selection of Head Start teachers was made through the local directors of Head Start in four of the five cities in which data were being collected. The local director of Head Start in the fifth city declined to distribute the sets of questionnaires to Head Start teachers in that area indicating that it was too late in the school year (the last week of school) to ask the teachers to participate in the study. This sample group consisted of twenty-eight teachers.

Teachers employed in community non-mainstreamed centers were selected in a manner similar to teachers from PATHWAYS and Head Start centers. However, the centers in which these teachers are employed were randomly selected from a list of licensed child care centers provided by the Michigan Department of Social Services. Those centers which

are participating in the PATHWAYS Project and in Head Start were eliminated from this list prior to random selection of the community centers. An additional difference in the selection of community center teachers and other teachers was that the directors of these centers were asked to select only one teacher from the staff who might be willing to participate in the study. This was done so that a wider variety of centers could be surveyed in each city. No teachers were selected from one of the cities due to lack of availability of non-mainstreamed centers which were open during the summer. The total sample size of this group was twenty-eight.

Prior to the collection of data, the following procedures were accomplished. First, the Director of PATHWAYS and the Outreach Coordinator of the project were personally contacted by the investigator. These persons each provided the investigator with a list of the centers, center directors and teachers who were involved in PATHWAYS. Second, the local directors of Head Start in four of the five cities in which data were collected were contacted by the investigator. The purpose of the study was explained to the directors, the content of each questionnaire was discussed and the cooperation of the directors was solicited in providing the names of the centers and teachers who were involved in Head Start in their area. The directors explained that it was against their policy to provide the names of the teachers, but three of the four directors

volunteered to distribute the questionnaires to their teachers. The fourth refused, as mentioned previously. At this time, the director of Head Start in the fifth city was contacted by the investigator and cooperation was obtained. Thirty of the fifty sets of questionnaires which were sent to Head Start directors were completed and returned. Two sets of questionnaires were eliminated from the total sample for this group because of missing or uncodable data.

The third pre-data collection procedure involved:

a) obtaining a Directory of Child Care Centers (1979) from the Michigan Department of Social Services; b) extracting the lists of centers located in each of the five target cities from the total list; and c) eliminating all of the PATHWAYS and Head Start centers from these lists. This revised list of centers served as the sampling list from which the community non-mainstreamed centers were randomly selected using a table of random numbers. Ten centers in four of the five cities were randomly selected and the directors of the centers telephoned by the investigator. This list was revised when the investigator discovered that a majority of the child care centers in three of the cities were closing soon for the summer and the teachers would not be available to participate in the study. For this reason, additional centers operated on a full year basis in each of the five cities were randomly selected, replacing the centers which were closing.

Given the final lists of centers and directors for each

of the groups, collection of data proceeded in the following manner. First, the investigator contacted each of the center directors by telephone and explained the purpose of the study. At this time, the directors of the community centers were asked if their program was currently mainstreaming handicapped children. If the director answered "yes", the investigator thanked them for their time and eliminated them from the sampling. Alternately, if their reply was "no", the project was explained in greater detail and they were asked if they believed one teacher would be willing to cooperate in the study. A total of sixty sets of questionnaires were sent to teachers employed in community centers. The final size of this sample was twenty-one.

Basically, the same sampling procedure was used in contacting and obtaining the cooperation of PATHWAYS teachers. For this group, however, the investigator mentioned that the center's participation in PATHWAYS was known and asked for the cooperation of all teachers in each center who were teaching in mainstreamed classes. If the director of the center replied that the teachers would probably be willing to participate in the study, the investigator asked how many teachers could be included and indicated that a package, including a separate set of materials for each teacher, would either be mailed or personally delivered by the investigator. Fifty sets of questionnaires were sent to PATHWAYS teachers and thirty were returned.

As mentioned previously, the local Head Start directors

in four of the five target cities agreed to distribute the questionnaires to their teachers. Of the fifty sets of questionnaires sent to Head Start teachers, thirty were returned. Two of these were eliminated from the sample because they contained a large amount of missing data or uncodable data, thus reducing the sample size of this group to twenty-eight.

If the questionnaires and informed consent forms were not returned within two weeks after they were sent, the investigator called the center director to find out: 1) if the questionnaire packets had been received at the center, and 2) when they might be returned. Collection of the data was completed in two months.

In order to protect the identity of the respondents, only their social security numbers were requested at the top of each questionnaire. Since the informed consent form required the respondent's name, these forms were separated from the questionnaires upon their return and were filed separately. All participation by the teachers in this study was completely voluntary.

Two additional forms of coding were placed on each questionnaire. Each type of center and each of the five cities were assigned the following color code: 1) PATHWAYS - blue; 2) Head Start - red; 3) Community centers - orange; 4) East Lansing/Lansing - black; 5) Flint - yellow; 6) Grand Rapids - brown; 7) Kalamazoo - pink; and 8) Jackson - green. Two small lines, one indicating the type of

center and the other the city, were marked in the upper right-hand corner of each questionnaire to provide the investigator with a means of determining how many returns were received from each type of center and city.

Each set of materials sent to the teachers contained the following information: 1) a letter of introduction and explanation of the purpose of the study; 2) an informed consent form; 3) three questionnaires (Appendix A); and 4) a self-addressed, postage paid envelope.

Description of Instruments

Three instruments were used to gather data about: a) preprimary teachers' attitudes toward mainstreaming, b) background information, c) experience interacting with young handicapped children, d) willingness to accept handicapped children into their regular classrooms and e) their knowledge about mainstreaming and handicapping conditions.

Attitudes Toward Mainstreaming

The Integration Opinionnaire, designed by the PATHWAYS Project staff at the Institute for Family and Child Study, Michigan State University (Carlson, 1978), was one of three instruments used in this study. The purpose of the opinionnaire was to elicit attitudes about the integration of handicapped children into early childhood education programs. The Integration Opinionnaire was pilot tested twice in order to elicit feedback from a wide variety of individuals as to the validity of the statements and to

establish the reliability of the instrument.

The original Integration Opinionnaire contained forty (40) opinion statements related to various aspects of integration. Items such as the following were included:

A primary benefit of mainstreaming in early childhood is the opportunity it offers for typical children to learn how to interact with children of different skills and abilities.

A disadvantage of mainstreaming is that it may be frustrating for a handicapped child to see other children doing things that he/she may not be able to do.

Handicapped children can be best served by professionals specially trained to teach the handicapped.

Parents of handicapped children would rather have their children placed in special classrooms than risk potential unpleasant experiences with typical children.

The Integration Opinionnaire uses a five-point Likert-type response format of "strongly agree", "agree", "disagree", "strongly disagree", and "undecided". The instructions for completion of the opinionnaire indicate that the "undecided" category is to be used only if the respondent truly has no opinion about a statement.

The first pilot test of the Integration Opinionnaire took place during Spring, 1978. A total of 104 opinionnaires were received from a sample of parents, teachers, PATHWAYS Advisory Council members, special education service providers and supporters, and citizens-at-large (Carlson, 1978). The data were analyzed using a Varimax Rotated Factor Analysis to determine potential attitude scales.

Analysis results yielded four potentially reliable scales, with each scale consisting of three or more opinion items. The four scales were: 1) skepticism about integration; 2) realism of adult expectations surrounding handicapped children; 3) support for alternative educational environments; and 4) benefits for "typical" children in integrated environments. The Alpha Reliability Coefficient for each of the scales was .75 or better except for the "realism of adult expectation" scale which had a reliability coefficient of .49. The reliability coefficient for the total scale was .79. Each of the four scales are substantiated in the literature related to integrating handicapped children into pre-primary educational settings (Carlson, 1978; Guralnick, 1978; Johnston, 1972; Galloway and Chandler, 1978; Condell and Tonn, 1965; Panda and Bartel, 1972).

Comparisons of across group responses on each scale item revealed significant differences among parents, teachers, advisory council members and citizens-at-large on certain items. Teachers strongly agreed more than other groups on two items related to the effect of integration on parents of handicapped children and the enhancement of people's attitudes toward the handicapped. Teachers strongly disagreed more than other groups items related to: a) handicapped children as undesirable models for typical children, b) the possibility of handicapped children becoming isolated in an integrated class, c) integration being a frustrating experience for a handicapped child, d) typical children's

unwillingness to interact with handicapped children, e) integrated programs not having enough structure to provide a total educational program for a handicapped child, and f) who can best meet the needs of a handicapped child - a regular teacher or a teacher specially trained to teach the handicapped. Advisory Council members strongly agreed more than other groups that parents may keep a better perspective on what to expect in their children's behavior if handicapped children are involved with typical children, and that adult biases toward the handicapped are more likely to occur in segregated than integrated settings. The advisory council members disagreed more than other groups with statements related to: a) parents of handicapped children being skeptical about integrated programs, b) community support of integrated educational and recreational programs, and c) integration being more important at the elementary school level than at the preschool level. Parents disagreed more than other groups that only mildly and moderately handicapped children should be integrated into regular programs.

An item analysis of the original Integration Opinionnaire statements indicated that ten items had low correlation coefficients and were, therefore, considered to be undifferentiating. Given these findings, the opinionnaire was modified omitting those ten undifferentiating items. The revision process also included rewording some statements which were identified by pilot study respondents as confusing and ambiguous.

The revised Integration Opinionnaire contains thirty items and requires the same Likert-type responses to the opinion statements as the original version. This opinionnaire was pilot tested using a large ($n = 1,000$) sample of the Michigan Association for the Education of Young Children (MAEYC) membership during Winter, 1979. A total of ninety-six opinionnaires were returned. The majority of respondents (49%) were teachers, 14.3% were consultants and 13.3% were child care center administrators. The data were analyzed using a Varimax Rotated Factor Analysis. The results of this analysis yielded three attitude scales. The three scales and the numbers of the items included in each were: 1) support for educational alternatives (items: 18, 19, 20, 22, 23, 25, 27, 29, 30); 2) benefits of integration (items: 1, 5, 9, 10, 17); and 3) skepticism about mainstreaming (items: 2, 3, 4, 7, 8, 13, 15, 24). The Alpha Reliability Coefficient for each of the scales was .90, .73 and .75 respectively.

The revised thirty item Integration Opinionnaire (Appendix A) was used in this study to determine and compare the differences in attitudes toward mainstreaming among teachers employed in PATHWAYS, Head Start and community child care centers. The three attitude scales obtained in the second pilot test of this instrument were used in the study for the analysis of hypotheses concerned with attitudes toward mainstreaming.

An Analysis of Variance conducted to determine the

source of variation between and within people and between measures indicated that: 1) the support for educational alternatives (support) scale was significant at .0001; 2) the benefits of integration (benefit) scale was significant at .0001; and 3) the skepticism about mainstreaming (skepticism) scale was significant at .0001. The Alpha Reliability Coefficient for each of the scales was: 1) support .6922; 2) benefit - .7076; and 3) skepticism - .6342. The Alpha Reliability Coefficient for the total attitude scale was .6920.

Background, Experience and Willingness to Accept Handicapped Children

The Background and Experience Information questionnaire (Appendix A) was developed by the investigator and surveyed information about the subject's: a) age; b) sex; c) racial and ethnic background; d) educational attainment; e) college major; f) teaching certification and type of certification; g) parental status; h) amount of experience interacting with young handicapped children in teaching and non-teaching situations; i) experience with varying types of handicapping conditions in children; j) length of time employed in present position; k) present teaching position - i.e. in a mainstreamed or non-mainstreamed classroom; and l) attendance at workshops/in-service training sessions and college courses related to normal child growth and development, planning and implementing programs for young children, meeting the needs of handicapped children, and working with

parents of young children. In addition to the above items, this questionnaire contains three hypothetical questions regarding the willingness of teachers to accept mildly, moderately or severely handicapped children into their classes if they were offered one of the following four types of assistance from the school administration: a) no additional assistance; b) an additional teacher aide; c) a resource person who has had extensive experience and training working with young handicapped children to assist them in planning for and integrating a child; or d) both an additional teacher aide and a resource person.

Three "willingness to accept" scales were developed by combining the ratings of the willingness of teachers to accept a: 1) mildly handicapped; 2) moderately handicapped; or 3) severely handicapped child if offered four types of assistance. An analysis of variance conducted on each of these scales revealed the following information. The "acceptance of a mildly handicapped child" scale was significant at $p = .0001$. The "acceptance of a moderately handicapped child" and the "acceptance of a severely handicapped child" were also significant at $p = .0001$. The Alpha Reliability Coefficient for each scale was: 1) acceptance of mildly handicapped child, .7398; 2) acceptance of moderately handicapped child, .6990; and 3) acceptance of a severely handicapped child, .8553.

The ten teachers who were interviewed by the investigator were also asked the following question:

What are the reasons why you would not accept a handicapped child into your classroom?

This open-ended question was asked to obtain some indication as to why preprimary teachers would not consider accepting a handicapped child into their regular classrooms.

Knowledge About Mainstreaming and Handicapping Conditions

The Survey of Terminology: Mainstreaming and Handicapping Conditions (Appendix A) was used to determine the degree of knowledge the preprimary teachers had about mainstreaming and handicapping conditions. This instrument was developed by the investigator with the assistance of Dr. Nancy A. Carlson. The format of the instrument was modeled after the Survey of Terminology: Learning Disabilities (1972) developed by the Great Lakes Regional Special Educational Instructional Materials Center, Michigan State University.

The following process was used in the development of the Survey of Terminology: Mainstreaming and Handicapping Conditions. First, the investigator, having reviewed literature pertinent to mainstreaming young handicapped children, made a list of approximately seventy words and phrases related to mainstreaming and handicapping conditions. Second, a list of fifty items including matching terms, pairs of "BETTER" statements, fill-in-the-blank and true or false questions was developed by the investigator. Third, the items were reviewed by a panel of experts in the fields of questionnaire design, child development, and special

education. All of the true and false questions were eliminated at this time due to the low (50 - 50) reliability and discrimination ability of such items. The formats of some of the true-false items were altered so they could be included in one of the other chosen formats. Fourth, the survey, now containing thirty-six items, was pilot tested with a sample of eleven persons who ranged in educational standing from a Freshman in college to professors of Child Development. These persons claimed to have "a great deal of knowledge" (n = 3), "some knowledge" (n = 3) or "very little" or "no knowledge" (n = 5) about mainstreaming and handicapping conditions. The total number of correct responses possible on the survey was thirty-six, giving each item an equal weight of one point. Scores, on the pilot test ranged from 18 to 33. The length of time it took the pilot sample of respondents to complete the survey ranged from 11 to 30 minutes with a mean length of time of 18.8 minutes.

After completing the survey, each respondent commented on the format of the survey and the readability and clarity of particular statements. None of the respondents recommended that an item be eliminated from the survey.

Finally, based on the information provided from the pilot test, minor changes were made in the format of the survey and in the wording of particular items. None of the thirty-six items were eliminated from the survey.

The final format of the Survey of Terminology: Mainstreaming and Handicapping Conditions contains thirty-six

items each scored with an equal weight of one point. The survey is divided into the following four sections: 1) matching (10 items); 2) pairs of "BETTER" statements (5 items); 3) fill-in-the-blank with the appropriate word (10 items) and 4) fill-in-the-blank by inserting the letter which represents the correct term listed above the statements (11 items).

Design

This study was descriptive and comparative in nature. The primary purposes of the study were to determine, describe and compare the attitudes, knowledge and experience of pre-primary teachers regarding the mainstreaming of young handicapped children into existing child care programs. Another purpose of the study was to determine if the degree which preprimary teachers are willing to accept handicapped children into their regular classrooms is a function of one or more of the following four factors: a) the amount of experience the teachers have had interacting with young handicapped children; b) the severity of a child's handicap; c) the type of assistance (support) the teachers would be offered to assist them in the mainstreaming process; and/or d) the teacher's level of knowledge about mainstreaming and handicapping conditions.

The following four designs were used in the study.

DESIGN I: A one-way crossed design with a single fixed measure was used as a basis for analysis of Hypotheses 1,

2, and 3. This design is depicted in Table 3.1.

TABLE 3.1

DESIGN FOR HYPOTHESES 1, 2, AND 3

Teachers Employed in Three Types
of Child Care Centers

PATHWAYS Teachers (mainstreamed)	Head Start Teachers (mainstreamed)	Community Center Teachers (non-mainstreamed)
n = 30	n = 28	n = 21

The dependent variable for Hypothesis 1 was the mean combined item scores obtained from teacher responses on the Integration Opinionnaire for each of three attitude scales.

The three attitude scales were:

- a) support for educational alternatives
- b) benefits of mainstreaming
- c) skepticism about mainstreaming

The dependent variable for Hypothesis 2 was the level of knowledge preprimary teachers have regarding mainstreaming and handicapping conditions. The three levels of knowledge were classified as:

- a) superior = score between 24 and 36
- b) average = score between 17 and 23
- c) below average = score between 0 and 16

The dependent variable for Hypothesis 3 was the mean of the total amount of experience preprimary teachers have had interacting with young handicapped children. The three

levels of experience were classified as:

- a) High = between 122 and 3,000 hours
- b) Medium = between 30 and 121 hours
- c) Low = between 0 and 29 hours

DESIGN II: A two-way crossed design, fixed model, was used as the basis for analysis for Hypotheses 4 and 5. The independent variables for Hypothesis 4 were the three types of centers in which the teachers were employed and the amount of experience the teachers have had interacting with handicapped children (3 levels). The dependent variable was the mean combined item scores of the teachers on the three attitude scales: 1) skepticism about mainstreaming, 2) benefits of mainstreaming and 3) support for educational alternatives. The two-way design for Hypothesis 4 is depicted in Tabel 3.2.

The independent variables for Hypothesis 5 were the three types of centers in which the teachers were employed and the level of knowledge the teachers have about mainstreaming and handicapping conditions. The dependent variable for this hypothesis was the mean combined item scores of teachers on the three attitude scales classified as skepticism, benefits, and support. The design for Hypothesis 5 is presented in Table 3.3.

DESIGN III: A nested design with repeated measures was used to test Hypotheses 6 and 7. This design was used to test for relationships between four independent variables with respect to the degree which all of the teachers were

TABLE 3.2

DESIGN FOR HYPOTHESIS 4Types of Centers in Which Teachers
Were Employed

PATHWAYS

Head Start

Community

High

Medium

Low

n =

n =

n =

n = 30

n = 28

n = 21

TABLE 3.3
DESIGN FOR HYPOTHESIS 5

Types of Centers in Which Teachers
 Were Employed

PATHWAYS		Head Start	Community
Superior			n =
Average			n =
Below Average			n =
	n = 30	n = 28	n = 21

Level of
 Knowledge

willing to accept a handicapped child into their regular classrooms. The five levels of the dependent variable, willingness to accept, were:

- a) always accept
- b) probably accept
- c) undecided
- d) probably not accept
- e) never accept

These variables were arranged on a Likert-type scale with 5 indicating a response of "always accept" and 1 indicating a response of "never accept". This measure was repeated for each kind of assistance offered and for each level of severity of handicap.

Design III with all levels of the independent variables for Hypothesis 6 is presented in Table 3.4. The insertion of three levels of knowledge in place of the levels of experience would present the design for Hypothesis 7. The ranges for both the levels of experience (in hours) and the levels of knowledge were presented in the discussion of Design II.

DESIGN IV: A one-way crossed design with a single measure was used as a basis for the analysis of Hypothesis 8. The independent variables were type of center and type of assistance the teachers would be offered in mainstreaming a child. The dependent variables were willingness to accept a mildly handicapped child, willingness to accept a moderately handicapped child and willingness to accept a severely handicapped child.

TABLE 3.4
DESIGN FOR HYPOTHESIS 6

Level of Experience	Severity of Handicap											
	Mild				Moderate				Severe			
Type of Assistance Offered	No Addition- al Support	Teacher Aide	Resource Person	Both Aide & Resource Person	No Addition- al Support	Teacher Aide	Resource Person	Both Aide & Resource Person	No Addition- al Support	Teacher Aide	Resource Person	Both Aide & Resource Person
High												
Medium												
Low												

Prior to depicting design IV, it should be noted that the dependent variable, mean willingness to accept a handicapped child, was repeated over three questions for each type of assistance. Mean willingness to accept scores were available for each of the respondents across all three types of severity of handicap (i.e. mild, moderate, severe). For this reason, the mean willingness to accept score for each type of severity of handicap was separately compared with the second independent variable (i.e. amount of experience, level of knowledge, type of center) for each hypothesis with respect to the type of assistance that would be offered. The method of analysis used were three One-way Analyses of Variance.

Design III is depicted for Hypothesis 8 in Table 3.5.

Data Analysis

The data obtained from all teachers on all instruments were coded, key punched on computer cards, and verified with the aid of a research consultant at Michigan State University. The computer program used for analyzing the data was the Northwestern University Statistical Package for the Social Sciences (SPSS). The inferential statistical tests used in this study were One-Way Analysis of Variance, Two-Way Analysis of Variance, and t-tests for differences between means on repeated measures. The alpha level of significance for decisions regarding rejection of a null hypothesis was set at $\alpha = .05$.

TABLE 3.5
DESIGN FOR HYPOTHESIS 8

Type of Assistance Offered	Type of Center		
	PATHWAYS	Head Start	Community
No Assistance			N = 79
Teacher Aide			N = 79
Resource Person			N = 79
Teacher Aide and Resource Person			N = 79
	N = 30	N = 28	N = 21

The statistical procedures used to test the nine hypotheses of this study are presented in Figure 3.1.

Summary

The population of this study was preprimary teachers employed in PATHWAYS mainstreamed, Head Start mainstreamed and community non-mainstreamed child care centers. The child care centers in which the teachers were employed were located within the city limits of five cities with populations of between 50,000 and 197,000 people (Verway, 1978). The sample consisted of a total of seventy-nine teachers. Thirty subjects were PATHWAYS teachers, twenty-eight were Head Start teachers and twenty-one were community center teachers. A set of three questionnaires were either personally delivered or mailed to the directors of the centers in which the teachers were employed. Three PATHWAYS and seven community center teachers included in the total sample participated in a fifteen minute interview responding to questions on the Background and Experience Information questionnaire developed and administered by the investigator.

The data from the three sample groups were analyzed to determine if:

- 1) differences existed in the teachers' attitudes toward mainstreaming on three attitude scales from the Integration Opinionnaire;
- 2) differences existed in PATHWAYS, Head Start and community center teachers' level of knowledge about mainstreaming and handicapping conditions;

FIGURE 3.1

METHODS USED IN DATA ANALYSIS

Purpose of Analysis	Data Used	Statistics
I. Description of Subjects		
a. Background Data	Demographic data from <u>Background and Experience Information</u> questionnaire	Frequencies, mean, cross-tabulation, Chi Square test
b. Amount of experience interacting with handicapped children	Experiential data	Frequencies, means
c. Attitudes of teachers toward mainstreaming	Responses to Likert-type items on the <u>Integration Opinionnaire</u>	Frequencies, means
d. Attitude scales	Responses to Likert-type items on the <u>Integration Opinionnaire</u>	Varimax Rotated Factor Analysis; Alpha Reliability
e. Willingness to accept mildly, moderately, or severely handicapped child if offered 4 types of assistance	Responses to Likert-type items for four types of assistance repeated across three questions each relating to a different type of severity of handicap	Frequencies, means, grand mean, Alpha Reliability
II. Tests of Hypotheses		
1, 2, 3	Type of centers in which teachers were employed	One-Way Analysis of Variance
4	Types of centers in which the teachers were employed; levels of amount of experience the teachers had interacting with handicapped children (3)	Two-Way Analysis of Variance
5	Types of centers in which the teachers were employed; scores on 3 levels of knowledge about mainstreaming and handicapping conditions	Two-Way Analysis of Variance

Figure 3.1 (con't)

6	3 levels of amount of experience; 3 types of severity of handicap; 4 types of assistance offered	T-tests and Analysis of Variance
7	3 levels of knowledge; 3 types of severity of handicap; 4 types of assistance offered	T-tests and Analysis of Variance
8	3 types of centers; 4 types of assistance offered	3 - One-Way Analysis of Variance & T-tests
9	Grand mean of all teachers' willingness to accept mildly, moderately or severely handicapped child	Means, grand means; paired T-test

3) differences existed in the amount of experience PATHWAYS, Head Start and community teachers have had interacting with young handicapped children;

4) there is a relationship between the teachers' level of knowledge about mainstreaming and handicapping conditions and/or amount of experience interacting with handicapped children with respect to their attitudes toward mainstreaming;

5) a relationship exists among the following independent variables and four types of assistance the teachers would be offered to help them mainstream handicapped children into their classes:

- a) the mean willingness of all teachers to accept a mildly, moderately or severely handicapped child;
- b) the amount of experience the teachers have had interacting with young handicapped children;
- c) the level of knowledge the teachers had about mainstreaming and handicapping conditions;
- d) the type of centers in which the teachers were employed;
- e) the grand mean of all teachers' willingness to accept a mildly, moderately or severely handicapped child.

CHAPTER IV

DESCRIPTION OF THE SUBJECTS

In this chapter, background data collected from teachers included in this study on the Background and Experience Information questionnaire are presented and discussed. In addition to presenting tabulations of numerical and percentage values of teacher responses, each of the variables to be discussed were cross tabulated with the three types of centers in which the teachers were employed. A Chi square test of significance was conducted to determine if significant differences existed among the teachers on these variables. The alpha level of significance used to determine if a comparison was significant was set at $\alpha \leq .05$.

Profile of Teachers

The subjects in this study were seventy-nine preprimary teachers employed in PATHWAYS mainstreamed, Head Start mainstreamed and community non-mainstreamed child care centers. The centers were located in cities with a population size of between 50,000 and 197,000 people. The number of respondents who were employed in each type of center are shown in Table 4.1.

The total sample included 75 (95%) females and 4 (5%) males. A majority (90%) of the teachers were White, 9% were Black and 1% were Oriental. A majority of the teachers (61%) were between twenty and thirty years of age. The ages of the teachers by type of center in which they were

TABLE 4.1

TEACHERS IN EACH TYPE OF CENTER

Type of Center			
PATHWAYS	Head Start	Community	Total
N (%)	N (%)	N (%)	N (%)
30 (38)	28 (35)	21 (27)	79 (100)

TABLE 4.2

AGES OF TEACHERS

Type of Center				
Age Range	PATHWAYS	Head Start	Community	Total
	N	N	N	N (%)
20 - 25	9	6	8	23 (29)
26 - 30	10	9	7	25 (32)
31 - 35	4	9	2	15 (19)
36 - 40	2	1	1	4 (5)
41 - 45	4	3	1	8 (10)
46 - 50		1		1 (1)
51+	1		2	3 (4)
Total	30	28	21	79 (100)

employed are shown in Table 4.2.

No significant differences were found on a chi square test among the teachers on the variables of age, sex or race when compared with the type of center in which they were employed. The alpha level of significance for all tests was set at $\alpha \leq .05$.

Significant differences did exist among the teachers on several variables related to their educational attainment. Included in Table 4.3 is a summary of the chi square values and level of significance for each of the educational attainment variables. The number and percentage values for each of the significant variables by type of center are presented in Tables 4.4-4.7.

Eighty-four percent of the total sample of teachers had attended a university. Of this percentage, 38% were teachers employed in PATHWAYS centers, 24% were Head Start teachers and 22.8% were community center teachers. Of those teachers who had not attended college, 7.6% had attended a Junior or Community college and 7.6% were High School graduates. A majority (55.7%) of all of the teachers who had earned a college degree had a Bachelor's degree; 20.3% of the teachers had earned a Master's degree. Twelve of the 30 (40%) PATHWAYS teachers had earned a Master's degree while only two out of 29 (7.1%) Head Start teachers and two out of 21 (9%) community teachers had obtained a Master's. Alternately, of the 12 (15.3%) teachers who had not earned a college degree 6 (7.6%) were Head Start

TABLE 4.3

DIFFERENCES AMONG TEACHERS
ON EDUCATION VARIABLES

Education	Raw Chi Square Score	Degrees of Freedom	Level of Significance*
Amount of Education	12.18	4	.0160
Type of Degree Earned	21.75	10	.0164
Teaching Certificate	6.81	2	.0331
Kind of Certificate	21.23	12	.0472
College Major	32.45	22	.0701
Years of College	21.90	20	.3458

TABLE 4.4

AMOUNT OF EDUCATION BY TYPE OF CENTER

Amount of Education	Type of Center			
	PATHWAYS N (%)	Head Start N (%)	Community N (%)	Total N (%)
High School Graduate		5 (6.3)	1 (1.3)	6 (7.6)
Junior College		4 (5.1)	2 (2.5)	6 (7.6)
University	30 (38.0)	19 (24.1)	18 (22.8)	67 (84.8)

TABLE 4.5

TYPE OF DEGREE BY TYPE OF CENTER

Type of Degree	Type of Center			
	PATHWAYS N (%)	Head Start N (%)	Community N (%)	Total N (%)
No Degree	2 (2.5)	6 (7.6)	4 (5.1)	12 (15.2)
Associate		6 (7.6)	1 (1.3)	7 (8.9)
Bachelors	16 (20.3)	14 (17.7)	14 (17.8)	44 (55.7)
Masters	12 (15.2)	2 (2.5)	2 (2.6)	16 (20.3)

TABLE 4.6

TEACHING CERTIFICATE BY TYPE OF CENTER

Response	Type of Center			
	PATHWAYS N (%)	Head Start N (%)	Community N (%)	Total N (%)
Yes	24 (30.4)	15 (19.0)	10 (12.7)	49 (62.0)
No	6 (7.6)	13 (16.5)	11 (13.9)	30 (38.0)

TABLE 4.7

KIND OF CERTIFICATION BY TYPE OF CENTER

Kind of Certification	Type of Center			
	PATHWAYS N (%)	Head Start N (%)	Community N (%)	Total N (%)
Elementary Education	8 (10.1)	7 (8.9)	7 (8.9)	22 (27.9)
Elementary Education with Early Childhood Endorsement	14 (17.7)	4 (5.0)	2 (2.5)	20 (25.2)
Secondary Education	2 (2.5)	2 (2.5)		4 (5.0)
Preschool/ Kinder- garten		1 (1.3)		1 (1.3)
Child Develop- ment Asso- ciate		1 (1.3)		1 (1.3)
Other			1 (1.3)	1 (1.3)

teachers, 4 (5.1%) were community teachers and only 2 (2.5%) were PATHWAYS teachers. Data presented in Table 4.6 indicate that 62% of all of the teachers had a teaching certificate and of these teachers, 30.4% were PATHWAYS teachers, 19.0% were Head Start teachers and 12.7% were community center teachers.

The final variable in the area of educational attainment in which significant differences among the teachers were noted, kind of certification, is presented in Table 4.7. Of the teachers who had certification (62%), a majority had either an Elementary Education (27.8%) or an Elementary Education with Early Childhood Endorsement (25.3%) teaching certificate.

The frequencies among teachers regarding the two education related variables for which there were no significant differences -- years of college and college major are presented in Tables 4.8 and 4.9.

TABLE 4.8
NUMBER OF YEARS TEACHERS ATTENDED COLLEGE

Type of Center	Number of Years of College										
	0	1	2	3	4	5	6	7	8	9	10
PATHWAYS	7		1		10	6		3	1	1	1
Head Start	5	3	5	2	10	1	1		1		1
Community	3		3	1	8	5	1	1			
Percent	18	4	11	4	35	14	3	5	3	1	3

TABLE 4.9
COLLEGE MAJOR BY TYPE OF CENTER

College Major	Type of Center				Total N (%)
	PATHWAYS N	Head Start N	Community N		
Child Development/ Early Childhood Ed.	13	9	4		26 (33)
Elem. Education	7	7	7		21 (25)
Other	1	4	4		9 (11)
Elem. Education/ Child Development	4	1			5 (6)
None		3	1		4 (5)
Social Work	1	1	1		3 (4)
Home Economics	2				2 (3)
Sociology			2		2 (3)
History		1	1		2 (3)
Secondary Ed.	1				1 (1)
Psychology			1		1 (1)

The data in Table 4.10 show that 49.4% of the teachers were parents and 50.6% were not parents. A frequency count of teachers who had children who were either handicapped or non-handicapped and who were either in preschool or not in preschool is presented in Table 4.11. The majority of teachers who were parents had children who were non-handicapped (79.5%) and not in preschool (71.8%).

Data related to the experiences teachers have had teaching in a mainstreamed classroom revealed significant differences among the teachers across centers with respect to whether they are presently or have ever taught in a classroom with at least one handicapped child. However, no differences were evident among the teachers across centers regarding: 1) their experiences interacting with young handicapped children in a situation other than teaching, and 2) the length of time they have been in their present position or in another teaching position. The chi square scores and level of significance for each of these variables are presented in Table 4.12.

Data regarding whether or not the teachers were teaching in a classroom with at least one handicapped child present (mainstreamed) are shown in Table 4.13. It is evident from viewing this table that the significant differences among the teachers can be accounted for by the fact that an overwhelming majority of the PATHWAYS and Head Start teachers (54.4%) were teaching in mainstreamed classes while only 3.8% of the community teachers were teaching in such a

TABLE 4.10

PARENTAL STATUS BY TYPE OF CENTER

Response	Type of Center			Total N (%)
	PATHWAYS N	Head Start N	Community N	
No	16	14	10	40 (50.6)
Yes	14	14	11	39 (49.4)

TABLE 4.11

FREQUENCY OF TEACHERS WITH CHILDREN WHO ARE HANDICAPPED,
NON-HANDICAPPED, IN PRESCHOOL, NOT IN PRESCHOOL
BY TYPE OF CENTER

Categories of Children	Type of Center			Total N (%)
	PATHWAYS N	Head Start N	Community N	
Non-handicapped	11	11	9	31 (79.5)
Handicapped	1			1 (2.6)
Not in Pre- school	10	10	8	28 (76.8)
In Preschool	3	3	2	8 (20.5)

TABLE 4.12

SIGNIFICANCE OF VARIABLES RELATED TO
TEACHING

Variables on Teaching	Chi Square Score	Degrees of Freedom	Level of Significance
Presently teaching in class with at least one handicapped child	25.84	4	.0000
Ever taught in class with at least one handicapped child	21.33	4	.0150
Number of months teaching in other class	55.56	44	.1136
Number of months in present position	60.11	50	.1549
Experience inter- acting with handi- capped child in situation other than teaching	3.24	4	.5178

TABLE 4.13

PRESENTLY TEACHING IN A CLASS WITH AT
LEAST ONE HANDICAPPED CHILD

Response	Type of Center			
	PATHWAYS N (%)	Head Start N (%)	Community N (%)	Total N (%)
Yes	22 (27.8)	21 (26.6)	3 (3.8)	46 (58.2)
No	8 (10.1)	6 (7.6)	18 (22.8)	32 (40.5)
No Answer		1 (1.3)		1 (1.3)

classroom. This difference was expected since the study was designed so that the teachers in the community centers were the "control" group who were to have little or no experience teaching in a mainstreamed classroom. In fact, it was expected that all of the Head Start teachers would be teaching in a mainstreamed class in accordance with the Federal mandate that ten percent of the enrollment in Head Start classrooms were to be handicapped children.

The investigator's expectations regarding the teachers having taught at some time in a mainstreamed class were basically the same as those for teachers who were presently teaching in such a class. The responses of the teachers on this variable are presented in Table 4.14.

TABLE 4.14
EVER TAUGHT IN A CLASS WITH AT LEAST
ONE HANDICAPPED CHILD

Response	Type of Center			
	PATHWAYS	Head Start	Community	Total
	N (%)	N (%)	N (%)	N (%)
Yes	21 (26.6)	23 (29.1)	11 (13.9)	55 (69.6)
No	8 (10.1)	2 (2.5)	10 (12.7)	20 (25.3)
No Response	1 (1.3)	3 (3.8)		4 (5.1)

Frequency data with respect to the teachers' responses on questions for which no significant differences were found

among the sub-groups of teachers are shown in Tables 4.15-4.17. Shown in Table 4.15 are the data on the teachers' experience interacting with young handicapped children in situations other than teaching; data on the length of time (in months) the teachers had been in their present positions are presented in Table 4.16; and the data on the length of time the teachers had previously taught in a classroom with at least one handicapped child present are presented in Table 4.17.

TABLE 4.15

EXPERIENCE INTERACTING WITH HANDICAPPED CHILDREN
IN SITUATION OTHER THAN TEACHING

Response	Type of Center			
	PATHWAYS	Head Start	Community	Total
	N (%)	N (%)	N (%)	N (%)
No	14 (17.7)	16 (20.3)	9 (11.4)	39 (49.4)
Yes	14 (17.7)	10 (12.7)	12 (15.2)	36 (45.6)
No Response	2 (2.5)	2 (2.5)		4 (5.0)

Two other background variables on which the teachers were surveyed are related to their education. For these items, the teachers were asked to list the number of inservice training or workshop sessions they had attended in the past two years and the number of college courses they had taken related to: 1) planning and implementing programs for young children; 2) normal child growth and development;

TABLE 4.16

MONTHS TEACHING IN PRESENT POSITION

Number of Months	Type of Center			
	PATHWAYS N	Head Start N	Community N	Total N (%)
No Response	7	3	3	13 (16.5)
1-6	4	3	3	10 (12.7)
7-12	11	12	8	31 (39.3)
13-18		3	1	4 (5.1)
19-24	3		1	4 (5.1)
25-30				0 (0.0)
31-36	2	2	3	7 (8.9)
37-42				0 (0.0)
43-48	1			1 (1.3)
49-54				0 (0.0)
55-60	2	2		4 (5.1)
61-66				0 (0.0)
67-72				0 (0.0)
73-78			1	1 (1.3)
79-84		2	1	3 (3.8)
85-90				0 (0.0)
91-96		1		1 (1.3)

TABLE 4.17

MONTHS TEACHING IN OTHER THAN PRESENT
MAINSTREAMING POSITION

Number of Months	Type of Center			Total N (%)
	PATHWAYS N	Head Start N	Community N	
No Response	9	7	10	26 (32.9)
1-6	5	5	2	12 (15.2)
7-12	5	8	6	19 (24.0)
13-18		4		4 (5.1)
19-24	6	1	1	8 (10.1)
25-30			1	1 (1.3)
31-36	4	1		5 (6.3)
37-42				0 (0.0)
43-48		2		2 (2.5)
49-54				0 (0.0)
55-60				0 (0.0)
61-66				0 (0.0)
67-72	1			1 (1.3)
73-78	1			1 (1.3)

3) meeting the needs of handicapped children; and 4) working with parents of young children. Shown in Table 4.18 are the differences that existed and did not exist among the teachers on each of these items according to the type of center in which they were employed. Level of significance was established by a chi square test.

For the variables related to the number of inservice training and/or workshop sessions the teachers had attended in the past two years, significant differences were found only in the area of meeting the needs of handicapped children. Significant differences among the teachers were evident in the areas of college courses taken on: 1) normal child growth and development; 2) meeting the needs of handicapped children; and 3) working with parents of young children. Frequency and percentage data on these variables are shown in Tables 4.19-4.22. Presented in Table 4.23 is a summary of the frequency of inservice training/workshops and courses taken by the teachers for those variables on which no significant differences were found.

Summary

This chapter has been devoted to describing and discussing the sample of teachers in this study. Analysis of the data revealed that 38 percent were employed in PATHWAYS (mainstreamed) child care centers, 35 percent were employed in Head Start (mainstreamed) child care centers and 27 percent were employed in community (non-mainstreamed) child care centers. A majority of the teachers were females (95%)

TABLE 4.18

DIFFERENCES AMONG TEACHERS ON ITEMS RELATED TO NUMBER OF
INSERVICE TRAINING/WORKSHOPS AND COLLEGE COURSES
TAKEN IN SPECIFIC SUBJECT MATTER AREAS

Subject Matter Areas	Chi Square Score	Degrees of Freedom	Level of Significance
<hr/>			
I. Number of Inservice Training/Workshops			
a. meeting the needs of handicapped children	38.05	16	.0015
b. normal child growth and de- velopment	14.19	18	.7168
c. planning and implementing programs for young child	12.99	18	.7920
d. working with parents of young chil- dren	9.84	16	.8750
II. Number of College Courses Taken			
a. meeting the needs of handicapped children	27.42	14	.0170
b. working with par- ents of young children	16.69	8	.0335
c. normal child growth and de- velopment	30.18	18	.0358
d. planning and implementing programs for young child	17.19	18	.5098

TABLE 4.19

INSERVICE TRAINING/WORKSHOPS TAKEN ON MEETING THE NEEDS
OF HANDICAPPED CHILDREN BY TYPE OF CENTER

Number of Inservice Train- ing/Workshops	Type of Center			
	PATHWAYS	Head Start	Community	Total
	N	N	N	N (%)
1	4	9	1	14 (17.7)
2	5	4	1	10 (12.7)
3	1			1 (1.3)
4	2	2		4 (5.1)
5	1	2		3 (3.8)
6		1		1 (1.3)
7				0 (0.0)
8	1			1 (1.3)
9	8	1		9 (11.4)
Total	21	19	2	42 (54.6)

TABLE 4.20

COLLEGE COURSES TAKEN ON MEETING THE NEEDS OF
HANDICAPPED CHILDREN BY TYPE OF CENTER

Number of Courses Taken	Type of Center			
	PATHWAYS N	Head Start N	Community N	Total N (%)
1	8	5	1	14 (17.7)
2	2	2	4	8 (10.1)
3	3			3 (3.8)
4	2			2 (2.5)
5	2			2 (2.5)
6			2	2 (2.5)
7				0 (0.0)
8				0 (0.0)
9	1			1 (1.3)
Total	18	7	7	32 (40.5)

TABLE 4.21
COLLEGE COURSES TAKEN ON WORKING WITH PARENTS OF
YOUNG CHILDREN BY TYPE OF CENTER

Number of Courses Taken	Type of Center			Total N (%)
	PATHWAYS N	Head Start N	Community N	
1	11	3	5	19 (24.6)
2	7	2	2	11 (13.9)
3	3	1	2	6 (7.6)
9		2		2 (2.5)
Total	<u>21</u>	<u>8</u>	<u>9</u>	<u>38 (48.6)</u>

TABLE 4.22

COLLEGE COURSES TAKEN ON PLANNING AND IMPLEMENTING
PROGRAMS FOR YOUNG CHILDREN BY TYPE OF CENTER

Number of Courses Taken	Type of Center			
	PATHWAYS N	Head Start N	Community N	Total N (%)
1	2	3	7	12 (15.2)
2	3	5	2	10 (12.7)
3	6	3	4	13 (16.5)
4	7	5	1	13 (16.5)
5		3	1	4 (5.1)
6	6		3	9 (11.4)
7			1	1 (1.3)
8	2			2 (2.5)
9	1	3		4 (5.1)
Total	27	22	19	68 (86.3)

TABLE 4.23
FREQUENCY OF INSERVICE TRAINING/WORKSHOP AND COLLEGE COURSES
TAKEN ON NONSIGNIFICANT VARIABLES

Type of Center	Frequency									
	0	1	2	3	4	5	6	7	8	9+
Inservice Training/Workshops: Planning and Implementing Programs for Young Children										
PATHWAYS	11	2	4	3	2	4				4
Head Start	10		4	2	2	2	2	1	2	3
Community	4	1	6	3	1	1	1		1	3
Inservice Training/Workshops: Normal Child Growth and Development										
PATHWAYS	15	5	3	2	1	1	1		1	1
Head Start	9	2	4	1	1	2	3	1	1	4
Community	5	4	3	4		1	1		1	2
Inservice Training/Workshops: Working With Parents of Young Children										
PATHWAYS	10	6	7	3	1	1	2			
Head Start	7	4	6	4	2	3			1	1
Community	9	3	4	2		1	1			1
College Courses Taken: Planning and Implementing Programs for Young Children										
PATHWAYS	5	3	7	6	1	2	2		2	2
Head Start	11	3	5	3	1	1	2			2
Community	10	2	4	2	2			1		

between twenty and thirty years of age (61%), and of a caucasian or white (90%) racial or ethnic background.

A chi square test comparing the teachers by the type of center in which they were employed was conducted on several variables regarding their educational attainment. The following educational variables showed significant differences among the teachers: 1) amount of education; 2) type of college degree earned; 3) attainment of teaching certification; and 4) kind of teaching certification. All 30 of the PATHWAYS teachers, 19 of the Head Start teachers and 18 of the community center teachers had attended a college or university. A review of the data regarding the kind of college degree earned shows that 55.7 percent of the teachers who had attended college had earned a Bachelor's degree. Of the PATHWAYS teachers who had earned a degree, 12 (40%) had earned a Master's degree while only 2 (7%) of the Head Start and 2 (9.5%) of the community center teachers had achieved this level of education. Among the teachers who had earned teaching certification, 30.4 percent were PATHWAYS teachers, 19.0 percent were Head Start teachers and 12.7 percent were community center teachers. Among the teachers who had a teaching certificate, more than one-half (53.1%) had either an Elementary Education certificate with an Early Childhood Education Endorsement or an Elementary Education certificate. The teachers were nearly equal according to the number of years they had attended college and their college majors.

Nearly half of the teachers were parents (49.4%). Only

one (2.6%) of the teacher/parents had a child who is handicapped and eight (20.5%) had child(ren) who were in preschool. The majority of teacher/parents had children who were nonhandicapped (79.5%) and/or not in preschool (71.8%).

The significant differences among the teachers regarding whether they were presently or had ever taught in a classroom with at least one handicapped child were expected given the design of this study. Of the 46 (58.2%) teachers who were presently teaching in a mainstreamed classroom, 43 (54.4%) were either PATHWAYS or Head Start teachers. Additionally, 44 (55.7%) of the 55 (69.6%) teachers who had previously taught in a mainstreamed class were from these two groups of teachers.

The only difference among the teachers regarding the number of inservice training/workshops they had attended in the past two years was in the area of meeting the needs of handicapped children. As shown in Table 4.19, only two of the community center teachers had attended workshops or inservice training sessions related to handicapped children while 21 of the PATHWAYS and 19 of the Head Start teachers had attended workshops in this area. This fact may partially explain the highly significant ($\alpha = .0015$) differences among the teachers. The teachers had nearly equivalent ratings related to the other three types of inservice training/workshop sessions (i.e. planning and implementing programs for young children; normal child growth and development; working with parents of young children).

Significant differences among the teachers on the number of college courses taken were evident for three of the four areas surveyed. The only area in which the teachers had similar ratings was planning and implementing programs for young children. The data in Tables 4.20-4.23 indicate that the PATHWAYS teachers had taken the greatest number of courses, Head Start teachers the next largest number of courses and community teachers the least number of courses related to meeting the needs of handicapped children, working with parents of young children and normal child growth and development. It is possible that these differences are closely related to the number of years the teachers had attended college, the type of degree they had earned, their college major and type of teaching certification they had obtained.

CHAPTER V

ANALYSIS OF RESULTS

The results of the data analyses are presented in relation to each hypothesis. Each hypothesis is stated separately, followed by the analysis.

Hypothesis 1

H1: Null hypothesis: There is no difference in PATHWAYS, Head Start and community child care center teachers' attitudes toward mainstreaming.

The statistic used to test for differences in attitudes toward mainstreaming among teachers employed in three types of centers was a one-way analysis of variance (ANOVA). A separate ANOVA was computed comparing the mean combined item scores of teachers employed in PATHWAYS, Head Start and community centers on each of the three attitude scales (support for educational alternatives, benefits of mainstreaming and skepticism about mainstreaming). The decision rule was to reject H1 if the F-statistic for any one of the comparisons was significant at $\alpha \leq .05$. The F-statistic and level of significance for each of the analyses are presented in Table 5.1.

Significant differences were indicated among the teachers employed in each type of center on all three attitude scales. Therefore, the null hypothesis was rejected.

H1₁: Alternative hypothesis: Teachers employed in PATHWAYS centers will have higher mean combined

item scores on the "support for educational alternatives" attitude scale than teachers employed in Head Start centers.

H₁₂: Alternative hypothesis: Teachers employed in Head Start centers will have higher mean combined item scores on the "support for educational alternatives" attitude scale than teachers employed in community centers.

Table 5.2 shows the means and standard deviations of the combined item scores of teachers by center on the "support for educational alternatives" attitude scale. Table 5.3 presents the results of the ANOVA computations comparing the attitudes of teachers across types of centers on the "support for educational alternatives" attitude scale.

The analysis of variance revealed that differences existed among the mean combined item scores of teachers in PATHWAYS, Head Start and community child centers on the support for educational alternatives attitude scale. The Scheffe post hoc procedure was used to determine where the differences existed among the three groups of teachers. This post hoc procedure is appropriate for contrasts among groups with unequal sample sizes such as those presented in this analysis. Significant differences existed at the .05 level primarily between the mean combined item scores of PATHWAYS ($\bar{x} = 4.45$) and community ($\bar{x} = 4.02$) teachers and between PATHWAYS and Head Start ($\bar{x} = 4.11$) teachers although at not quite the same magnitude as the former. Therefore,

TABLE 5.1
LEVEL OF SIGNIFICANCE OF THE ATTITUDES OF
TEACHERS EMPLOYED IN THREE TYPES OF CENTERS
ON THREE ATTITUDE SCALES

Attitude Scale	F Ratio	Level of Significance
Support for Educational Alternatives	6.51	.002
Benefits of Mainstreaming	8.87	.0003
Skepticism about Main- streaming	4.19	.01

TABLE 5.2

MEANS AND STANDARD DEVIATIONS
FOR TEACHERS BY CENTER ON SUPPORT FOR EDUCATIONAL
ALTERNATIVES ATTITUDE SCALE

Type of Center	Mean	Standard Deviation	N
PATHWAYS	4.45	.485	30
Head Start	4.11	.443	28
Community	4.02	.414	21
Total	4.19	.447	79

TABLE 5.3

ANALYSIS OF VARIANCE TABLE OF SUPPORT
FOR EDUCATIONAL ALTERNATIVES ATTITUDE
SCALE BY TYPE OF CENTER

Source of Variation	Sum of Squares	D.F.	Mean Square	F	Level of Significance
Between Groups	2.6655	2	1.3327	6.51	.002
Within Groups	15.5513	76	.2046		
Total	18.2168	78			

alternative hypothesis 1 was not rejected.

No significant differences were indicated between the mean combined item scores of Head Start and community center teachers using Scheffe post hoc procedures. Therefore, the attitudes of these two groups of teachers toward support for alternative educational environments for young handicapped children are homogeneous, and alternative hypothesis 2 was rejected.

A review of the statistical results indicated that the PATHWAYS teachers in this study are more supportive of alternative educational environments for young handicapped children than either Head Start or community center teachers. PATHWAYS teachers either "strongly agree" or "agree" more often than Head Start or community center teachers with the following statements:

Since many young handicapped children need care during the day in addition to special educational experiences, financial and professional assistance must be made available to family and center day care providers.

The public schools should provide the resources and professional services so that young handicapped children have a variety of alternative educational environments available for them.

Many young handicapped children could benefit from placement in both specialized environments and integrated environments to maximize growth in all areas of development.

A good way to enhance people's attitudes toward the handicapped is to have children make contact with the handicapped in natural, matter-of-fact ways while they are still young.

Adult biases, stereotypes and underestimations of special children's abilities are more likely to occur in segregated than integrated settings.

Parents who wish to have their special child enrolled in regular preschool programs should receive the same services and financial support to their child's education as parents who enroll their child in programs for special children only.

Efforts to mainstream handicapped children during the preschool years are at least as important as mainstreaming during the elementary school years.

The PATHWAYS teachers also either "disagree" or "strongly disagree" more often than teachers in the other two groups with the statement:

Parents of handicapped children would rather have their children placed in special classrooms than risk potential unpleasant experiences with typical children.

H1₃: Alternative hypothesis: Teachers employed in PATHWAYS centers will have higher mean combined item scores on the "benefits of mainstreaming" attitude scale than teachers employed in Head Start.

H1₄: Alternative hypothesis: Teachers employed in Head Start centers will have higher mean combined item scores on the "benefits of mainstreaming" attitude scale than teachers employed in community centers.

The means and standard deviations of the mean combined item scores of the teachers employed in the three types of

TABLE 5.4

MEANS AND STANDARD DEVIATIONS OF TEACHERS'
MEAN COMBINED ITEM SCORES ON THE BENEFITS OF
MAINSTREAMING ATTITUDE SCALE

Type of Center	Mean	Standard Deviation	N
PATHWAYS	4.51	.355	30
Head Start	4.05	.507	28
Community	4.16	.436	21
Total	4.26	.477	79

TABLE 5.5

ANALYSIS OF VARIANCE TABLE ON BENEFITS
OF MAINSTREAMING ATTITUDE SCALE BY TYPE
OF CENTER

Source of Variation	Sum of Squares	D.F.	Mean Square	F	Level of Significance
Between Groups	3.3607	2	1.6804	8.87	.0003
Within Groups	14.3942	76	.1894		
	17.7549	78			

centers on the "benefits of mainstreaming" attitude scale are presented in Table 5.4. Data from the comparison of the attitudes of teachers in each type of center on the "benefits of mainstreaming" attitude scale are shown in Table 5.5.

As shown in Table 5.5, significant differences ($\alpha = .0003$) existed among the attitudes of the teachers in PATHWAYS, Head Start and community centers on the "benefits of mainstreaming" attitude scale. The results of the Scheffe contrasts computed at the .05 level to determine where the differences existed indicated that the PATHWAYS ($\bar{x} = 4.51$) teachers had significantly higher mean combined item scores on this scale than either the Head Start ($\bar{x} = 4.05$) or community ($\bar{x} = 4.16$) center teachers. The differences between PATHWAYS and community center teachers were only slightly greater than those between the PATHWAYS and Head Start teachers. Therefore, alternative hypothesis 3 was not rejected. Alternative hypothesis 4 was rejected since there were no significant differences between the mean combined item scores of the Head Start and community center teachers.

PATHWAYS teachers believed more strongly than Head Start or community center teachers that mainstreaming provides positive benefits for young handicapped children. In other words, PATHWAYS teachers either "strongly agree" or "agree" more often than teachers in the other two types of centers with the statements:

With supplemental services, the regular
preschool program can provide the

environment and modeling that stimulates a handicapped child's learning.

It may be an advantage for parents of handicapped children to be involved with typical children so that they can keep a balanced perspective on what to expect in children's behavior.

It is reinforcing and rewarding for parents of handicapped children to feel that their child is accepted and capable of functioning in a regular classroom.

Mainstreaming provides an opportunity for typical children to realize that handicapped children have feelings and thoughts just like they do.

These teachers also either "disagree" or "strongly disagree" more often than Head Start or community center teachers with the statement:

Handicapped children are more likely to grow in independence and confidence in a segregated rather than integrated setting.

H₁₅: Alternative hypothesis: Teachers employed in PATHWAYS centers will have higher mean combined item scores on the "skepticism about mainstreaming" attitude scale than teachers employed in Head Start centers.

H₁₆: Alternative hypothesis: Teachers employed in Head Start centers will have higher mean combined item scores on the "skepticism about mainstreaming" attitude scale than teachers employed in community centers.

Presented in Table 5.6 is a review of the means and standard deviations of the teachers employed in each type of center on the "skepticism about mainstreaming" attitude

scale. An analysis of variance was computed comparing the attitudes of teachers employed in each of the three types of centers on the "skepticism about mainstreaming" attitude scale. According to the results of the ANOVA, there were significant differences among the groups at the .01 level of significance. Therefore, the Scheffe post hoc procedure was computed. The results of the ANOVA computation are shown in Table 5.7.

The results of the post hoc comparisons showed that the differences existed between the PATHWAYS ($\bar{x} = 4.01$) and both the Head Start ($\bar{x} = 3.68$) and community ($\bar{x} = 3.58$) center teachers at the .05 level of significance. Therefore, alternative hypothesis 5 was not rejected. No differences were evidenced between the mean combined item scores of Head Start and community center teachers and thus, alternative hypothesis 6 was rejected.

These data show that PATHWAYS teachers are significantly less skeptical about mainstreaming young handicapped children into regular child care centers than either Head Start or community center teachers. The PATHWAYS teachers either "strongly disagree" or "disagree" more often than Head Start or community center teachers with the statements:

Handicapped children disrupt the classroom and serve as undesirable models for typical children.

When only one or two handicapped children are present in a regular program, they often become isolated.

TABLE 5.6

MEANS AND STANDARD DEVIATIONS OF TEACHER
SCORES ON SKEPTICISM ABOUT MAINSTREAMING
ATTITUDE SCALE BY TYPE OF CENTER

Type of Center	Mean	Standard Deviation	N
PATHWAYS	4.01	.579	30
Head Start	3.68	.546	28
Community	3.58	.578	21
Total	3.78	.567	79

TABLE 5.7

ANALYSIS OF VARIANCE COMPARING
TEACHERS' MEAN COMBINED ITEM SCORES ON
SKEPTICISM ABOUT MAINSTREAMING BY TYPE
OF CENTER

Source of Variation	Sum of Squares	D.F.	Mean Square	F	Level of Signifi- cance
Between Groups	2.6951	2	1.3476	4.19	.01
Within Groups	24.4395	76	.3216		
Total	27.1346	78			

The attention and individualized help that special children get in segregated programs for the handicapped outweighs the value of the interaction with typical children in integrated settings.

The specialized instruction that handicapped children need cannot effectively be provided by regular preschool and nursery school teachers.

Handicapped children require almost constant one-on-one attention from a teacher in order to achieve their individualized learning objective.

Most regular teachers are not able to handle a whole classroom of typical kids as well as the demands of one or two children with special needs.

They also either "agree" or "strongly agree" more often than the other teachers with the statement:

A handicapped child in a regular preschool program requires more adult attention than typical children require.

This finding is logical and could reflect a more realistic rather than a skeptical attitude, given the significantly more positive attitudes of PATHWAYS teachers. Teachers in the other two types of centers seemed to be more skeptical about providing alternative educational environments for young handicapped children and the benefits that mainstreaming provides for such children.

Hypothesis 2

H2: Null hypothesis: There is no difference in PATHWAYS, Head Start and community center teachers' level of knowledge about mainstreaming and handicapping conditions.

H2₁: Alternative hypothesis: PATHWAYS teachers will have a higher level of knowledge about mainstreaming and handicapping conditions than Head Start teachers.

H2₂: Alternative hypothesis: Head Start teachers will have a higher level of knowledge about mainstreaming and handicapping conditions than community center teachers.

The means and standard deviations were computed for each group of teachers. These are shown in Table 5.8.

An ANOVA was computed comparing the scores of teachers employed in each type of center on the Survey of Knowledge: Mainstreaming and Handicapping Conditions instrument. The decision rule was to reject H1 if the F-statistic was significant at or above the .05 level. The results of the analysis of variance are provided in Table 5.9.

Significant differences were found in levels of knowledge about mainstreaming and handicapping conditions among PATHWAYS, Head Start and community center teachers at the .003 level. Therefore, the null hypothesis was rejected. The Scheffe post hoc procedure was computed at the .05 level to determine where the differences in knowledge existed. The results of this contrast indicated the PATHWAYS teachers ($\bar{x} = 23.52$) had significantly greater knowledge about mainstreaming and handicapping conditions than either Head Start ($\bar{x} = 18.75$) or community ($\bar{x} = 18.81$) center teachers and thus, alternative hypothesis 1 was not

TABLE 5.8

MEANS AND STANDARD DEVIATIONS OF TEACHERS'
SCORES ON THE SURVEY OF KNOWLEDGE: MAIN-
STREAMING AND HANDICAPPING CONDITIONS BY
TYPE OF CENTER

Type of Center	Mean	Standard Deviation	N
PATHWAYS	23.52	.626	30
Head Start	18.75	.716	28
Community	18.81	.655	21
Total	20.36	.666	79

TABLE 5.9

ANALYSIS OF VARIANCE COMPARING THE LEVEL
OF KNOWLEDGE OF TEACHERS IN THREE TYPES
OF CENTERS

Source of Variation	Sum of Squares	D.F.	Squares	F	Level of Signifi- cance
Between Groups	5.3946	2	2.6973	6.07	.003
Within Groups	33.7952	76	.4447		
Total	39.1899	78			

rejected. However, the levels of knowledge of Head Start and community center teachers were homogeneous. Therefore, alternative hypothesis 2 was rejected.

Hypothesis 3

H3: Null hypothesis: There is no difference in PATHWAYS, Head Start and community center teachers' amount of experience interacting with handicapped children.

H3₁: Alternative hypothesis: PATHWAYS teachers will have had a greater amount of experience interacting with handicapped children than Head Start teachers.

H3₂: Alternative hypothesis: Head Start teachers will have had a greater amount of experience interacting with handicapped children than community center teachers.

The total experience score from which the analysis of variance was computed was a combined score including the total amount of experience the teachers have had interacting with young handicapped children both in situations other than teaching and in integrated classroom settings. The following formula was used to compute total experience:

$$\frac{\text{number of minutes per week interaction}}{60 \text{ minutes}} = \text{number of hours per week interaction}$$

$$\frac{\text{number of hours per week interaction}}{1} \times 4 = \text{number of hours per month interaction}$$

$$\frac{\text{number of hours per month interaction}}{1} \times \text{total months of interaction} = \text{total hours interaction}$$

The range of total hours of interaction time for all teachers was between 0 and 3,000 hours. No differences were found among the total amount of experience the teachers have had interacting with young handicapped children. Therefore, the null hypothesis was not rejected.

In addition to computing the total number of hours teachers had interacted with young handicapped children, the investigator also used an analysis of variance to determine if the teachers in the three types of centers differed in the number of hours they had interacted with handicapped children in other than teaching situations and in integrated classroom settings thus subdividing the total experience score into two factors. These data revealed significant differences among the three groups of teachers on the variable experience in other than teaching situations at the .03 level. The Scheffe post hoc procedure indicated that the community ($\bar{x} = 167.85$) and PATHWAYS ($\bar{x} = 147.16$) teachers had spent a significantly greater number of hours interacting with young handicapped children in other than teaching situations than Head Start ($\bar{x} = 51.17$) teachers. The means of the community center and PATHWAYS ($\bar{x} = 147.16$) teachers were homogeneous. No significant differences were found regarding the amount of experience the teachers had had interacting with young handicapped children in integrated classrooms. The related alternative hypotheses were both rejected.

Hypothesis 4

H4: Null hypothesis: There is no relationship among PATHWAYS, Head Start and community center teachers' amount of experience interacting with handicapped children with respect to their attitudes toward mainstreaming.

Hypothesis 5

H5: Null hypothesis: There is no relationship among PATHWAYS, Head Start and community center teachers' level of knowledge about mainstreaming and handicapping conditions with respect to their attitudes toward mainstreaming.

Two separate two-way ANOVA's were computed to determine if relationships existed between the type of center in which the teachers were employed and the amount of experience they had interacting with young handicapped children and between the type of center and amount of knowledge the teachers had with respect to their attitudes toward mainstreaming young handicapped children into regular preprimary classrooms. Shown in Table 5.10 are the main effects for type of center and amount of experience as they impact on the attitudes of teachers toward mainstreaming. The main effects for type of center and level of knowledge are presented in Table 5.11.

The data showed a main effect for type of center in which the teachers were employed at the .001 level and no main effect for amount of experience. There was no two-way

TABLE 5.10

ANOVA TABLE OF MAIN EFFECTS FOR TYPE OF CENTER
AND EXPERIENCE ON THE ATTITUDES OF
TEACHERS TOWARD MAINSTREAMING

Source of Variation	Sum of Squares	D.F.	Mean Squares	F	Significance of F
Main Effects	1427.516	4	356.879	4.93	.002
Center	1157.322	2	578.661	8.00	.001
Experience	258.191	2	142.595	1.97	.148

TABLE 5.11

ANOVA TABLE OF MAIN EFFECTS FOR KNOWLEDGE AND
TYPE OF CENTER ON THE ATTITUDES OF
TEACHERS TOWARD MAINSTREAMING

Source of Variation	Sum of Squares	D.F.	Mean Squares	F	Significance of F
Main Effects	1992.711	4	498.178	7.69	.001
Knowledge	791.242	2	395.621	6.10	.004
Center	507.428	2	253.714	3.92	.02

interaction between type of center and amount of experience. The Scheffe post hoc procedure was computed to determine where differences existed among the teachers across the three types of centers. The data showed significant ($\alpha = .05$) differences between the attitudes of PATHWAYS ($\bar{x} = 87.30$) teachers and both Head Start ($\bar{x} = 80.28$) and community ($\bar{x} = 82.62$) teachers. The attitudes of Head Start and community center teachers were homogeneous. Since there was no main effect for amount of experience nor a two-way interaction between amount of experience and type of center, null hypothesis 4 was not rejected.

The two-way ANOVA computed to determine if a relationship existed between level of knowledge and type of center with respect to the attitudes of teachers toward mainstreaming showed that a significant positive relationship was present between these two variables. There was a main effect for level of knowledge ($\alpha = .004$) and a main effect for type of center ($\alpha = .02$) but no interaction between these two variables. Given the significant main effects, null hypothesis 5 was rejected.

H5₁: Alternative hypothesis: The relationship between the teachers' level of knowledge about mainstreaming and handicapping conditions and their attitudes toward mainstreaming will be greater for PATHWAYS teachers than for Head Start teachers.

H5₂: Alternative hypothesis: The relationship between

the teachers' level of knowledge about mainstreaming and handicapping conditions and their attitudes toward mainstreaming will be greater for Head Start teachers than for community center teachers.

A separate ANOVA was computed comparing the attitudes of teachers toward mainstreaming by type of center and the attitudes of teachers by level of knowledge about mainstreaming and handicapping conditions. Presented in Table 5.12 is a review of the means and standard deviations for this analysis. The ANOVA table for the attitudes of teachers toward mainstreaming by type of center is shown in Table 5.13.

The data show a significant difference among the attitudes of teachers toward mainstreaming across centers at the .005 level. The Scheffe post hoc procedure contrasting the differences among teachers by type of center revealed a significant difference ($\alpha = .05$) between the attitudes of PATHWAYS ($\bar{x} = 87.30$) and Head Start ($\bar{x} = 80.29$) teachers but no differences between Head Start and community ($\bar{x} = 82.62$) teachers.

The ANOVA table showing the significance of level of knowledge on the attitudes of teachers toward mainstreaming is presented in Table 5.14. The means and standard deviations for this comparison are shown in Table 5.15.

The data show that the level of knowledge teachers have about mainstreaming and handicapping conditions has a highly significant ($\alpha = .0005$) impact on their attitudes toward

TABLE 5.12

MEANS AND STANDARD DEVIATIONS FOR TEACHERS'
ATTITUDES TOWARD MAINSTREAMING BY
TYPE OF CENTER

Type of Center	Mean	Standard Deviation	N
PATHWAYS	87.30	6.4762	30
Head Start	80.29	9.6719	28
Community	82.62	7.9654	21
Total	83.57		79

TABLE 5.13

ANOVA TABLE COMPARING TEACHER ATTITUDES
TOWARD MAINSTREAMING BY
TYPE OF CENTER

Source of Variation	Sum of Squares	D.F.	Mean Squares	F	Signif. of F
Between Groups	738.4004	2	369.2002	5.60	.005
Within Groups	5010.9667	74	65.9338		
Total	5749.3671	76			

TABLE 5.14

ANOVA TABLE COMPARING TEACHER ATTITUDES TOWARD
MAINSTREAMING BY LEVEL OF KNOWLEDGE ABOUT
MAINSTREAMING AND HANDICAPPING CONDITIONS

Source of Variation	Sum of Squares	D.F.	Mean Squares	F	Signif. of F
Between Groups	1050.2485	2	525.1242	8.49	.0005
Within Groups	4699.1186	76	61.8305		
Total	5749.3671	78			

TABLE 5.15

MEANS AND STANDARD DEVIATIONS OF TEACHERS' SCORES ON
KNOWLEDGE OF MAINSTREAMING AND HANDICAPPING
CONDITIONS REGARDING THEIR ATTITUDES
TOWARD MAINSTREAMING

Level of Knowledge	Mean	Standard Deviation	N
Superior	88.63	5.1568	24
Average	82.49	9.1331	39
Below Average	78.63	7.8220	16
Total	83.57		79

mainstreaming. The Scheffe contrast showed that teachers with a superior level of knowledge had a significantly more positive attitude toward mainstreaming than teachers with either an average or below average level of knowledge at the .05 level of significance. There was no difference between the attitudes of teachers who had an average and below average level of knowledge. Given the main effects for type of center and level of knowledge, and that the relationship between PATHWAYS' teachers' attitudes toward mainstreaming and their level of knowledge about mainstreaming and handicapping conditions was significantly greater than for Head Start teachers, alternative hypothesis 1 was not rejected. There was no relationship between the level of knowledge and the attitudes toward mainstreaming for Head Start and community center teachers and thus, alternative hypothesis 2 was rejected.

Hypothesis 6

H6: Null hypothesis: There is no relationship among the amount of experience teachers have had interacting with young handicapped children and the type of assistance they would be offered in mainstreaming a mildly, moderately or severely handicapped child with respect to their willingness to accept a handicapped child into their regular classrooms.

A paired t-test was computed to compare the mean scores of teachers at each level of experience by severity of

handicap for each type of assistance offered. The significance level of these tests was reported for each of the comparisons as a basis for rejecting or not rejecting the null and alternative hypothesis. The decision rule was to reject an alternative hypothesis at or above the .05 level of significance. The results of the paired t-test comparisons indicated that a significant positive relationship existed between these variables. Therefore, null hypothesis 6 was rejected. The results of the t-tests is provided in a table at the end of each set of three alternative hypotheses.

H6₁: Alternative hypothesis: Teachers who have a high amount of experience and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₂: Alternative hypothesis: Teachers who have a medium amount of experience and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₃: Alternative hypothesis: Teachers who have a low amount of experience and are offered no additional assistance will be more willing to accept

a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

The mean levels of willingness to accept a mildly, moderately and severely handicapped child by teachers who are offered no additional assistance are plotted in Figure 5.1 by the amount of experience they have had interacting with young handicapped children. The results of paired t-tests indicated that teachers with a high amount of experience are significantly ($\alpha = .004$) more willing to accept a mildly than a moderately handicapped child if offered no additional assistance. The data also indicate that teachers with a high amount of experience are significantly ($\alpha = .000$) more willing to accept a moderately than a severely handicapped child under this circumstance. Therefore, alternative hypothesis 1 was not rejected.

The data show that teachers with a medium amount of experience were more willing to accept a mildly than a moderately handicapped child ($\alpha = .000$) and more willing to accept a moderately than a severely handicapped child ($\alpha = .000$) if offered no additional assistance. Therefore, alternative hypothesis 2 was not rejected.

Teachers who were offered no additional assistance and had a low amount of experience were significantly ($\alpha = .000$) more willing to accept a mildly handicapped child than a moderately handicapped child. These teachers were also more

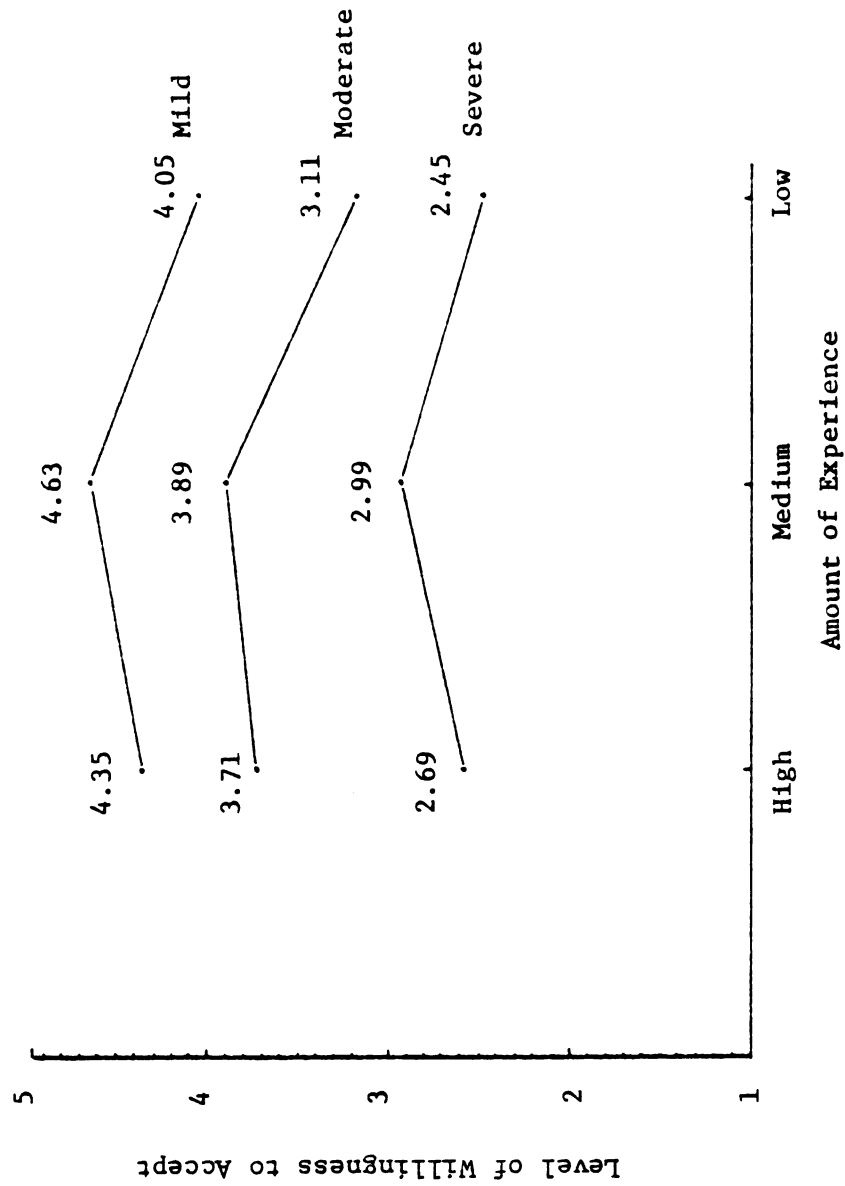


Figure 5.1

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED
CHILD BY AMOUNT OF EXPERIENCE IF OFFERED NO
ADDITIONAL ASSISTANCE

willing to accept a moderately handicapped child than a severely handicapped child ($\alpha = .000$) and thus, alternative hypothesis 3 was not rejected. Reviewed in Table 5.16 are the results of the paired t-tests comparing the mean willingness of teachers to accept a mildly, moderately and a severely handicapped child by amount of experience if offered no additional assistance in the classroom.

According to Steel and Torrie (1960) it is possible to determine if main effects are present for variables and if an interaction exists between two variables from a graphic illustration of the variable means. With regard to main effects for the variable plotted on the X axis of a graph, if there is a change in the magnitude of means plotted on a line, there is a main effect for that variable. If the lines on which the means are plotted are sufficiently separated, there is a main effect for the variable plotted in the graph. In terms of treatment means presented in a two-way table, interaction may be a difference in magnitude of response or a difference in direction of response (Steel & Torrie, 1960, p. 198).

The slope and separation of the lines graphed in Figure 5.1 indicate that there is a main effect for the amount of experience the teachers have had interacting with young children who are handicapped and a main effect for the severity of a child's handicap. The fact that the lines change in direction and are not parallel to each other suggests that there is a two-way interaction between amount

TABLE 5.16

RESULTS OF T-TESTS COMPARING TEACHERS' MEAN WILLINGNESS
TO ACCEPT A HANDICAPPED CHILD BY AMOUNT OF EXPERIENCE
IF OFFERED NO ADDITIONAL ASSISTANCE

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of T	D.F.	Sig. of T
<u>High Exper.</u>								
<u>Mild</u>		4.35	.606					
vs	17			.65	.786	3.39	16	.004
Moderate		3.71	.686					
Moderate		3.71	.686					
vs	17			1.12	.697	6.61	16	.000
Severe		2.59	.870					
<u>Medium Exper.</u>								
<u>Mild</u>		4.63	.496					
vs	19			.74	.733	4.38	18	.000
Moderate		3.89	.809					
Moderate		3.89	.809					
vs	19			1.00	.882	4.94	18	.000
Severe		2.89	.994					
<u>Low Exper.</u>								
<u>Mild</u>		4.05	.804					
vs	38			.95	.985	5.93	37	.000
Moderate		3.11	.981					

TABLE 5.16
(continued)

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of t	D.F.	Sig. of t
Moderate		3.11	.981					
vs	38			.56	.745	5.44	37	.000
Severe		2.45	1.032					

of experience and severity of handicap. Therefore, the amount of experience teachers have had working with young handicapped children and the severity of the child's handicap have an impact on the willingness of teachers to accept a handicapped child into their regular classrooms.

H6₄: Alternative hypothesis: Teachers who have a high amount of experience and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₅: Alternative hypothesis: Teachers who have a medium amount of experience and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₆: Alternative hypothesis: Teachers who have a low amount of experience and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

Means for the willingness of teachers to accept a

mildly, moderately or severely handicapped child were plotted for teachers who are offered the assistance of an additional teacher aide by the amount of experience they have had interacting with young handicapped children in Figure 5.2. The decision rule for rejecting the alternative hypotheses was set at the .05 level of significance.

The results of t-tests on severity of handicap by amount of experience show that teachers with a high amount of experience were more willing to accept a mildly handicapped child than a moderately handicapped child ($\alpha = .01$) and significantly more willing to accept a moderately handicapped child than a severely handicapped child ($\alpha = .000$). Therefore, alternative hypothesis 4 was not rejected.

Significant differences were also shown for teachers who had a medium amount of experience and were offered the assistance of an additional teacher aide in the classroom. These teachers were more willing to accept a mildly handicapped child than a moderately handicapped child ($\alpha = .01$). A significance level of .000 indicated that the teachers were also more willing to accept a moderately than a severely handicapped child and thus, alternative hypothesis 5 was not rejected.

The data show that teachers with a low amount of experience were significantly more willing to accept a mildly than a moderately ($\alpha = .000$) and a moderately than a severely ($\alpha = .000$) handicapped child into their regular classrooms if offered the assistance of an additional

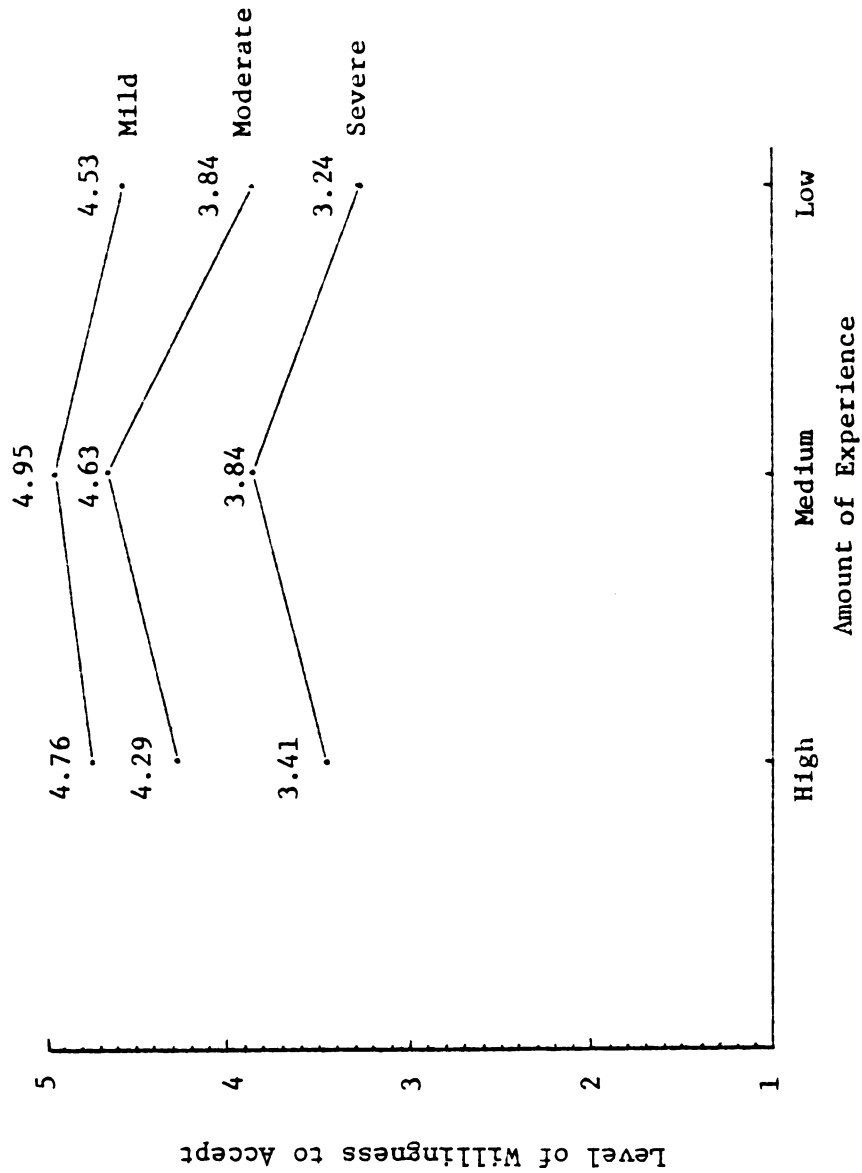


Figure 5.2

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED CHILD BY AMOUNT OF EXPERIENCE IF OFFERED THE ASSISTANCE OF AN ADDITIONAL TEACHER AIDE

teacher aide. Therefore, alternative hypothesis 6 was not rejected.

The results of the paired t-tests computed between the means for acceptance of a mildly and moderately handicapped child and a moderately and a severely handicapped child by amount of experience if offered the assistance of an additional teacher aide in the classroom are presented in Table 5.17.

The graphed means in Figure 5.2 show a main effect for amount of experience and a main effect for severity of handicap. The magnitude of the main effects tended to change in a significantly downward direction between the willingness of teachers who had a medium amount of experience to accept a handicapped child and teachers who had a low amount of experience. A two-way interaction is evident for severity of handicap and amount of experience by the non-parallel positioning of the lines. The interaction effect points out the necessity to carefully evaluate all aspects regarding integration if all that can be offered is an additional teacher aide.

H6₇: Alternative hypothesis: Teachers who have a high amount of experience and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

TABLE 5.17
RESULTS OF PAIRED T-TESTS OF SEVERITY OF HANDICAP WITH AMOUNT OF
EXPERIENCE FOR WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED
CHILD IF OFFERED THE ASSISTANCE OF AN ADDITIONAL
TEACHER AIDE

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of T	D.F.	Sig. of T
<u>High Exper.</u>								
Mild vs Moderate	17	4.76	.437	.47	.717	2.70	16	.01
Moderate vs Severe	17	4.29	.686	.88	.781	4.66	16	.000
<u>Medium Exper.</u>								
Mild vs Moderate	19	4.95	.229	.32	.478	2.88	18	.01
Moderate vs Severe	19	4.63	.496	.79	.713	4.82	18	.000
<u>Low Exper.</u>								
Mild vs Moderate	38	4.53	.506	.68	.775	5.55	37	.000
Moderate vs Severe	38	3.84	.754	.61	.718	5.20	37	.000

H6₈: Alternative hypothesis: Teachers who have a medium amount of experience and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₉: Alternative hypothesis: Teachers who have a low amount of experience and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

Illustrated in Figure 5.3 are the means of willingness to accept a handicapped child for severity of handicap by amount of experience for teachers who are offered the assistance of an experienced resource person in mainstreaming such a child into their regular classrooms. Paired t-tests were computed comparing the willingness of teachers to accept a mildly versus a moderately and a moderately versus a severely handicapped child by amount of experience if offered the assistance of an experienced resource person. The decision rule was to reject the alternate hypothesis at the .05 level.

The data indicated that teachers who are offered the assistance of a resource person and have a high amount of experience are significantly more willing to accept a mildly

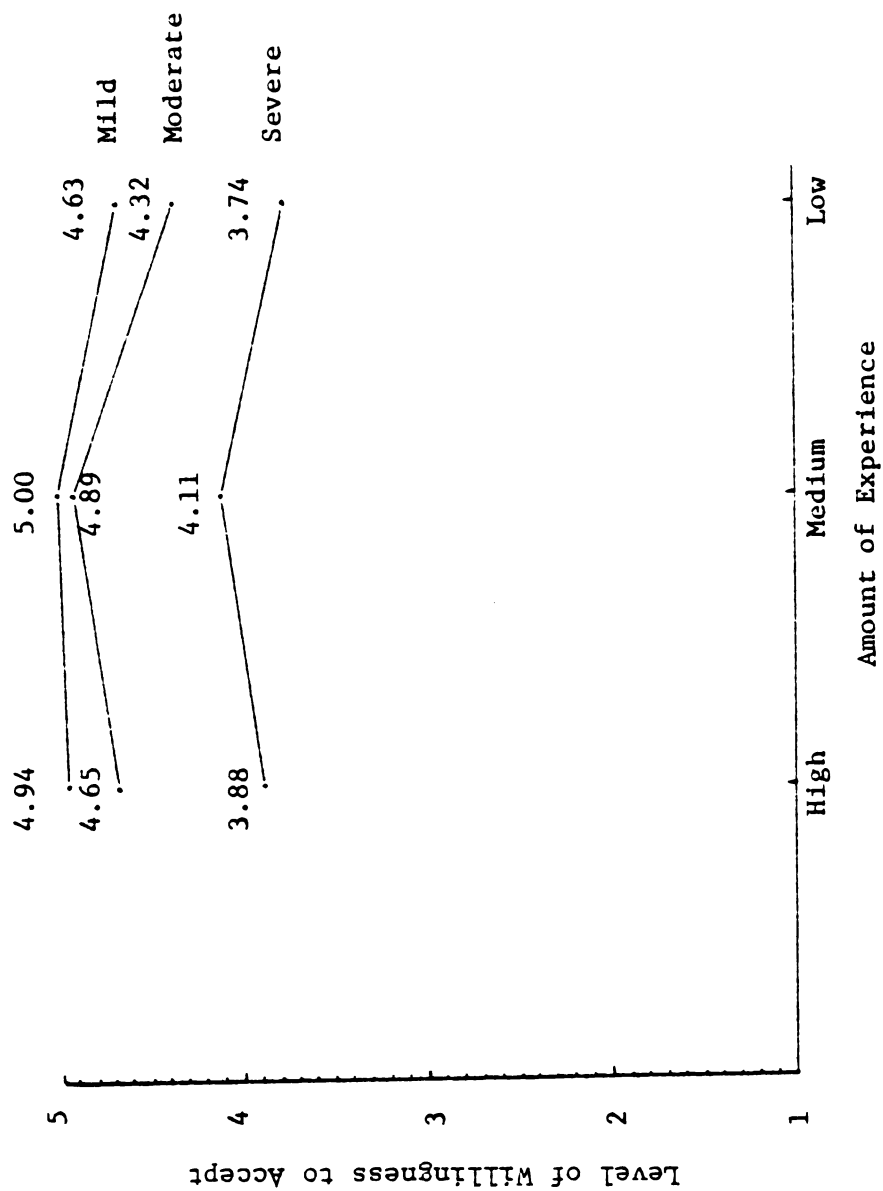


Figure 5.3

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED
CHILD BY AMOUNT OF EXPERIENCE IF OFFERED THE
ASSISTANCE OF AN EXPERIENCED RESOURCE
PERSON

handicapped child than a moderately handicapped child at the .02 level. A moderately handicapped child would also be accepted more often than a severely handicapped child ($\alpha = .001$). Therefore, alternative hypothesis 7 was not rejected.

There was no difference in the willingness of teachers with a medium amount of experience to accept a mildly and a moderately handicapped child if offered the assistance of an experienced resource person. A significant difference at the .001 level existed for the willingness of these teachers to accept a moderately handicapped child more than a severely handicapped child. Alternative hypothesis 8 was rejected.

Teachers who were offered the assistance of an experienced resource person and who had a low amount of experience were more willing to accept a mildly than a moderately handicapped child ($\alpha = .009$). T-test results also indicated that the teachers were significantly more willing to accept a moderately handicapped child than a severely handicapped child at the .000 level. Therefore, alternative hypothesis 9 was not rejected. The results of the paired t-test comparisons of the mean scores discussed above are presented in Table 5.18.

The slope, position and direction of the lines formed by the graphed means in Figure 5.3 indicate the presence of main effects and a two-way interaction for and between severity of handicap and amount of experience. It seems that the amount of experience teachers have interacting with

TABLE 5.18
RESULTS OF PAIRED T-TESTS OF SEVERITY OF HANDICAP WITH AMOUNT OF
EXPERIENCE FOR WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED
CHILD IF OFFERED THE ASSISTANCE OF AN EXPERIENCED
RESOURCE PERSON

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of t	D.F.	Sig. of T
<u>High Exper.</u>								
Mild vs Moderate	17	4.49	.243	.29	.470	2.58	16	.02
Moderate vs Severe	17	4.65	.493	.76	.752	4.19	16	.001
<u>Medium Exper.</u>								
Mild vs Moderate	19	5.00	0	.11	0	0	18	1.00
Moderate vs Severe	19	4.89	.315	.79	.918	3.75	18	.001
<u>Low Exper.</u>								
Mild vs Moderate	38	4.63	.541	.32	.702	2.77	37	.009
Moderate vs Severe	38	4.32	.702	.58	.599	5.86	37	.000

young handicapped children and the severity of a child's handicap, especially if the child is severely handicapped, have an impact on their willingness to accept such a child if offered the assistance of an experienced resource person. In other words, if the handicap is severe, some teachers are less willing to attempt integration, but they clearly are not rejecting even a severely handicapped child.

H6₁₀: Alternative hypothesis: Teachers who have a high amount of experience and are offered the assistance of an additional teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₁₁: Alternative hypothesis: Teachers who have a medium amount of experience and are offered the assistance of an additional teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H6₁₂: Alternative hypothesis: Teachers who have a low amount of experience and are offered the assistance of an additional teacher aide and an experienced resource person will be more willing to

accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

The mean willingness to accept a handicapped child by teachers who are offered the assistance of a teacher aide and a resource person are plotted for severity of handicap by amount of experience in Figure 5.4.

Paired t-test comparisons of the mean willingness to accept a mildly versus a moderately handicapped child for teachers who had either a high or a medium amount of experience and were offered the assistance of both an additional teacher aide and an experienced resource person revealed no significant differences among the responses of the teachers. Therefore, alternate hypotheses 10 and 11 were rejected.

The data showed that teachers who had a low amount of experience and were offered the assistance of an additional teacher aide and an experienced resource person were significantly ($\alpha = .003$) more willing to accept a mildly handicapped child than a moderately handicapped child. These teachers were also significantly ($\alpha = .000$) more willing to accept a moderately than a severely handicapped child given the type of assistance offered. Therefore, alternative hypothesis 12 was not rejected. A review of the t-test results for this alternative hypothesis is presented in Table 5.19.

The graphed means presented in Figure 5.4 indicate

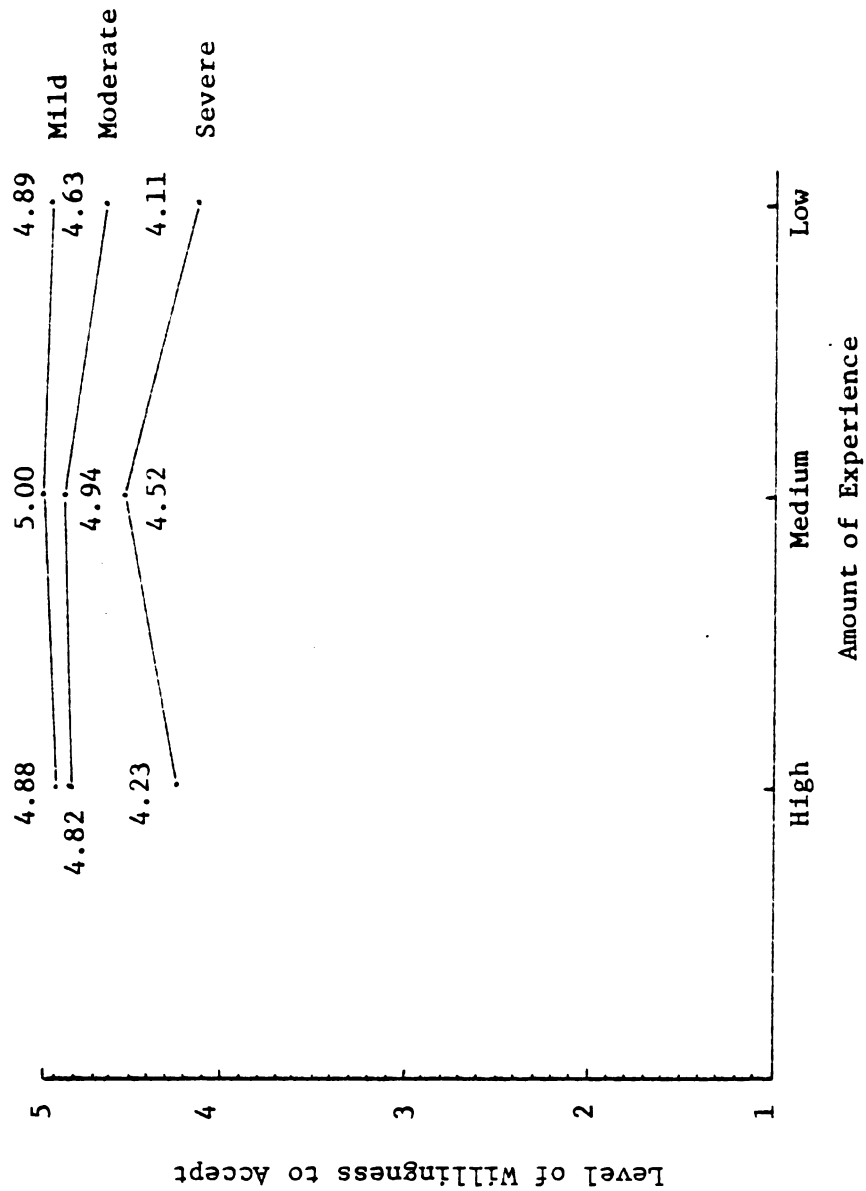


Figure 5.4

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED CHILD BY AMOUNT OF EXPERIENCE IF OFFERED THE ASSISTANCE OF AN ADDITIONAL TEACHER AIDE AND AN EXPERIENCED RESOURCE PERSON

TABLE 5.19

RESULTS OF PAIRED T-TESTS OF SEVERITY OF HANDICAP WITH A LOW AMOUNT
OF EXPERIENCE FOR THE WILLINGNESS OF TEACHERS TO ACCEPT A
HANDICAPPED CHILD IF OFFERED THE ASSISTANCE OF AN
ADDITIONAL TEACHER AIDE AND AN EXPERIENCED
RESOURCE PERSON

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of T	D.F.	Sig. of T
Mild		4.89	.311					
vs	38			.26	.503	3.22	37	.003
Moderate		4.63	.541					
Moderate		4.63	.541					
vs	38			.52	.762	4.26	37	.000
Severe		4.11	.764					

there is a slight possibility of a main effect for amount of experience given that there is only a minimal amount of slope to the lines connecting the means. The relatively small difference between the mean acceptance of a mildly and a moderately handicapped child suggests that there is probably no main effect for severity of handicap. Additionally, the almost parallel appearance of the graphed means in Figure 5.4 indicate that there is probably no interaction between amount of experience and severity of handicap. Therefore, it might be assumed that experience interacting with a young handicapped child and the severity of a child's handicap have only a minimal impact on the willingness of teachers to accept a handicapped child into their regular classrooms if they are offered the assistance of both an additional teacher aide and an experienced resource person in mainstreaming such a child.

Means for the willingness of teachers with different levels of experience to accept a severely handicapped child if offered various types of assistance are illustrated in Figure 5.5. It is clear from this graph that when offered as much help as possible, teachers at all experience levels are very willing to accept a severely handicapped child into their classes. As the amount of assistance offered is reduced, so is the willingness of the teachers to accept a severely handicapped child. If the data for the willingness of teachers to accept a mildly or moderately handicapped child were plotted in a manner similar to that in

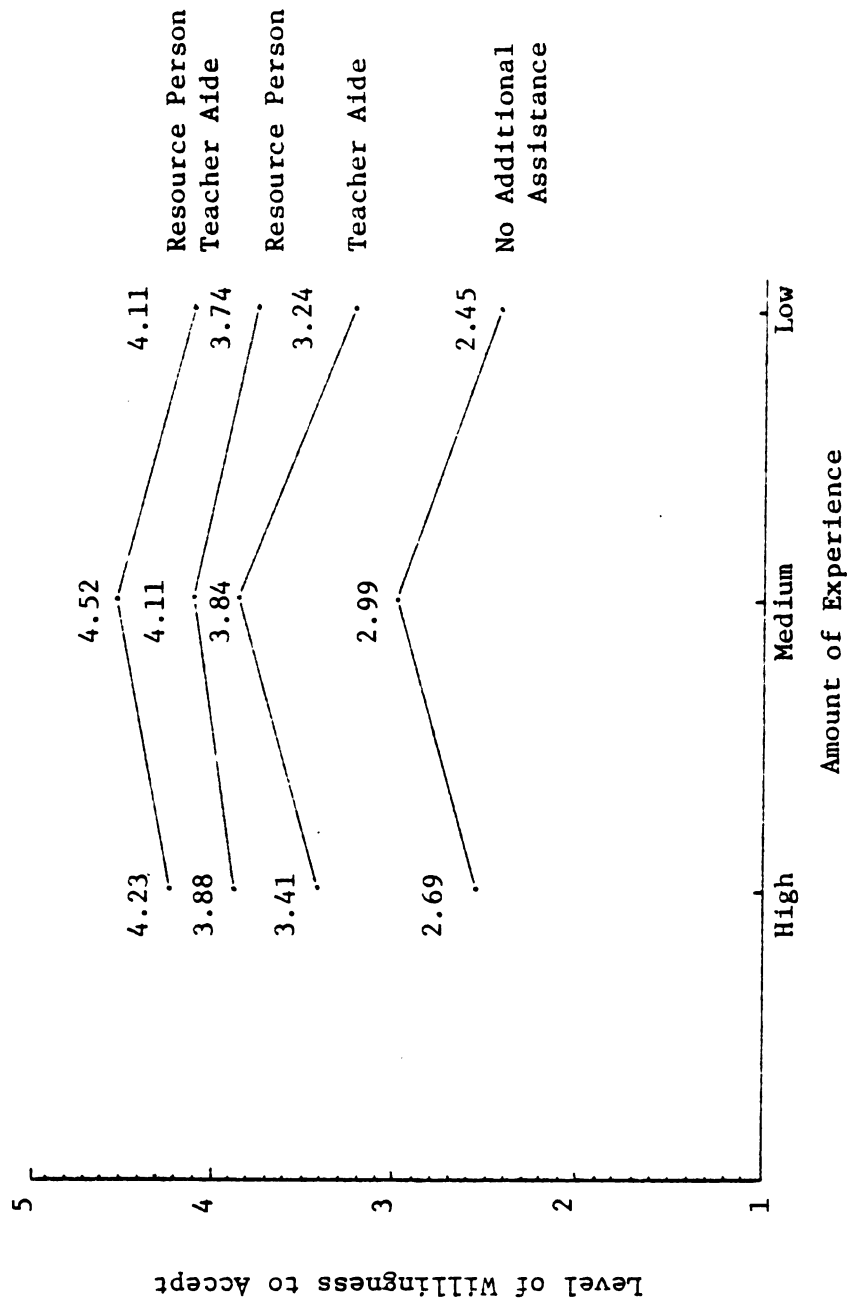


Figure 5.5

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A SEVERELY HANDICAPPED
CHILD BY AMOUNT OF EXPERIENCE IF OFFERED
VARIOUS TYPES OF ASSISTANCE

Figure 5.5, the results would yield similar conclusions. Thus, when offered as much assistance as possible, teachers are very willing to accept a handicapped child, regardless of the amount of experience they have had interacting with handicapped children or the severity of the child's handicapping condition.

Hypothesis 7

H7: Null hypothesis: There is no relationship among the level of knowledge about mainstreaming and handicapping conditions teachers have and the type of assistance they would be offered in mainstreaming a mildly, moderately or severely handicapped child with respect to their willingness to accept a handicapped child into their regular classrooms.

Separate paired t-tests and means were computed for the willingness of teachers to accept a handicapped child with each type of severity of handicap by level of knowledge and type of assistance they would be offered. There was a significant positive relationship between knowledge and willingness to accept a mildly, moderately or severely handicapped child given different types of assistance. Therefore, the null hypothesis was rejected. These data are reviewed in Tables 5.20-5.24 at the end of each set of related alternative hypotheses.

H7₁: Alternative hypothesis: Teachers who have a superior level of knowledge and are offered no

additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₂: Alternative hypothesis: Teachers who have an average level of knowledge and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₃: Alternative hypothesis: Teachers who have a below average level of knowledge and are offered no additional assistance will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

The level of knowledge about mainstreaming and handicapping conditions teachers had was determined by the number of correct responses they reported on the Survey of Terminology: Mainstreaming and Handicapping Conditions developed by the investigator and Dr. Nancy A. Carlson for the purpose of this study. Teachers who had a score between 24 and 36 were given a superior rating. Teachers with between 17 and 23 correct responses were labeled as having an average level

of knowledge, and teachers with between 0 and 16 were rated as having a below average level of knowledge. The decision rule was to reject the alternative hypothesis if the T value was significant at or above the .05 level.

The means of the willingness of teachers to accept a mildly, moderately and severely handicapped child if offered no additional assistance are plotted in Figure 5.6 according to the level of knowledge the teachers had about mainstreaming and handicapping conditions. Data from the results of the paired t-test comparisons indicated that teachers with a superior level of knowledge about mainstreaming and handicapping conditions are significantly ($\alpha = .000$) more willing to accept a mildly than a moderately handicapped child and are significantly ($\alpha = .000$) more willing to accept a moderately than a severely handicapped child if offered no additional assistance in their classrooms. Therefore, alternative hypothesis 1 was not rejected.

A significant t value of 6.54 ($\alpha = .000$) indicated that teachers who have an average amount of knowledge and are offered no additional assistance are more willing to accept a mildly than a moderately handicapped child. A moderately handicapped child is significantly ($\alpha = .000$) more willingly accepted by the teachers than a severely handicapped child and thus, alternative hypothesis 2 was not rejected.

The data show that teachers who are offered no additional assistance and who have a below average level of

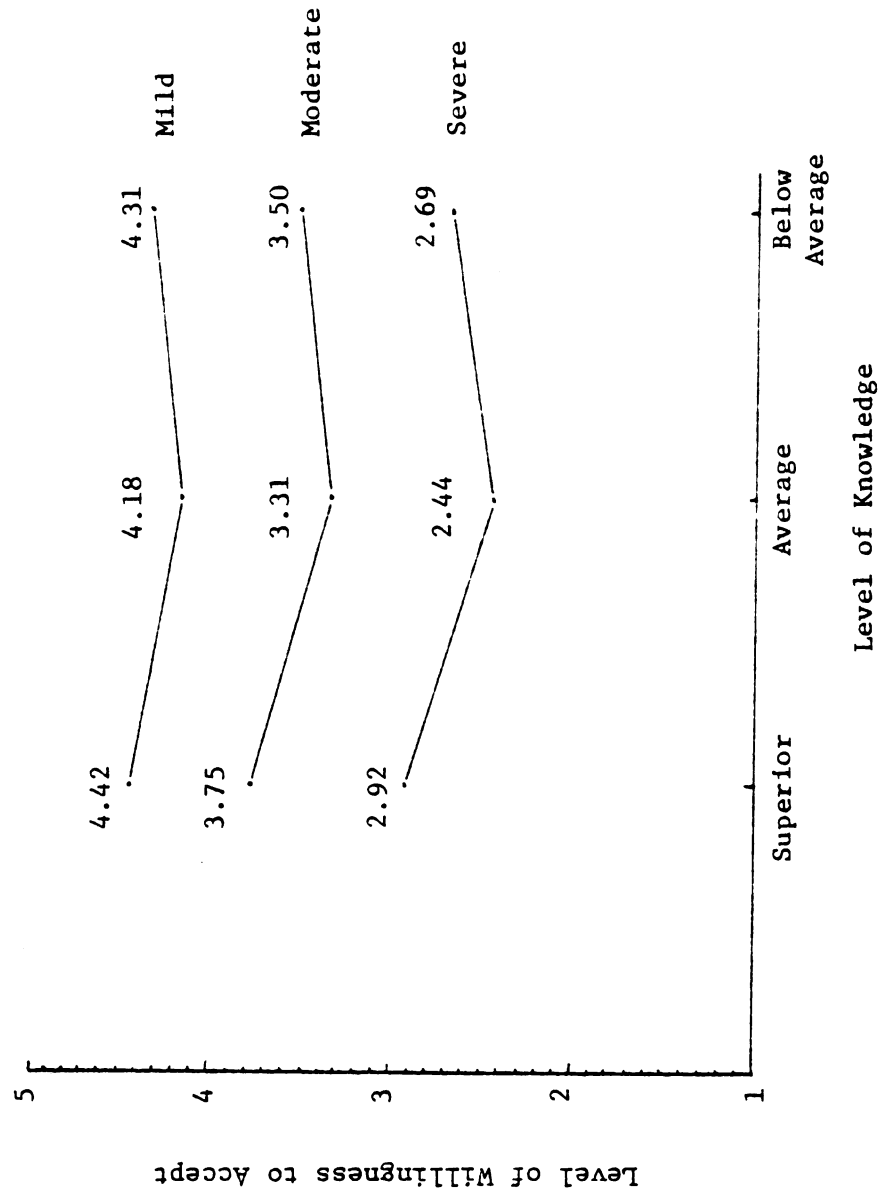


Figure 5.6

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED
CHILD BY LEVEL OF KNOWLEDGE IF OFFERED NO
ADDITIONAL ASSISTANCE

knowledge are significantly ($\alpha = .01$) more willing to accept a mildly handicapped child than a moderately handicapped child and are more willing to accept a moderately than a severely handicapped child ($\alpha = .001$). Therefore, alternative hypothesis 3 was not rejected. A review of the paired t-test comparisons computed for these three hypotheses is presented in Table 5.20.

The method suggested by Steel and Torrie (1960, p. 198) was used to determine if main effects and a two-way interaction existed for these variables. The means plotted in Figure 5.6 provided the basis for such determinations. Given that there is a change in the direction of the mean willingness to accept a handicapped child across all types of severity of handicap, it is likely that there is a main effect for level of knowledge. The significant difference in the magnitude (degree) to which the teachers were willing to accept a handicapped child among the types of severity of handicap suggests a main effect for severity of handicap. Therefore, the level of knowledge teachers have about mainstreaming and handicapping conditions and the severity of a child's handicapping condition have a significant impact on their willingness to accept a disabled child into their regular classrooms if offered no additional assistance. The nearly parallel nature of the lines suggest that there is probably no two-way interaction between level of knowledge and severity of handicap in this circumstance.

H7₄: Alternative hypothesis: Teachers who have a

TABLE 5.20
RESULTS OF PAIRED T-TESTS OF SEVERITY OF HANDICAP WITH LEVEL OF
KNOWLEDGE FOR WILLINGNESS OF TEACHERS TO ACCEPT A
HANDICAPPED CHILD IF OFFERED NO ADDITIONAL
ASSISTANCE

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of T	D.F.	Sig. of T
<u>Superior Knowledge</u>								
Mild vs Moderate	24	4.42	.584	.67	.761	4.29	23	.000
Moderate vs Severe	24	3.75	.794	.83	.702	5.82	23	.000
<u>Average Knowledge</u>								
Mild vs Moderate	39	4.18	.823	.87	.833	6.54	38	.000
Moderate vs Severe	39	3.31	.950	.87	.864	6.30	38	.000
<u>Below Average Knowledge</u>								
Mild vs Moderate	16	4.31	.602	.81	1.109	2.93	15	.01
Moderate vs Severe	16	3.50	1.033	.81	.834	3.90	15	.001

superior level of knowledge and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₅: Alternative hypothesis: Teachers who have an average level of knowledge and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₆: Alternative hypothesis: Teachers who have a below average level of knowledge and are offered the assistance of an additional teacher aide will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

In Figure 5.7 are the graphed means of the willingness of teachers to accept a mildly, moderately or severely handicapped child by their level of knowledge when offered the assistance of an additional teacher aide in the classroom. The results of paired t-test comparisons of teachers who had a superior, average and below average level of knowledge with their willingness to accept a: 1) mildly versus

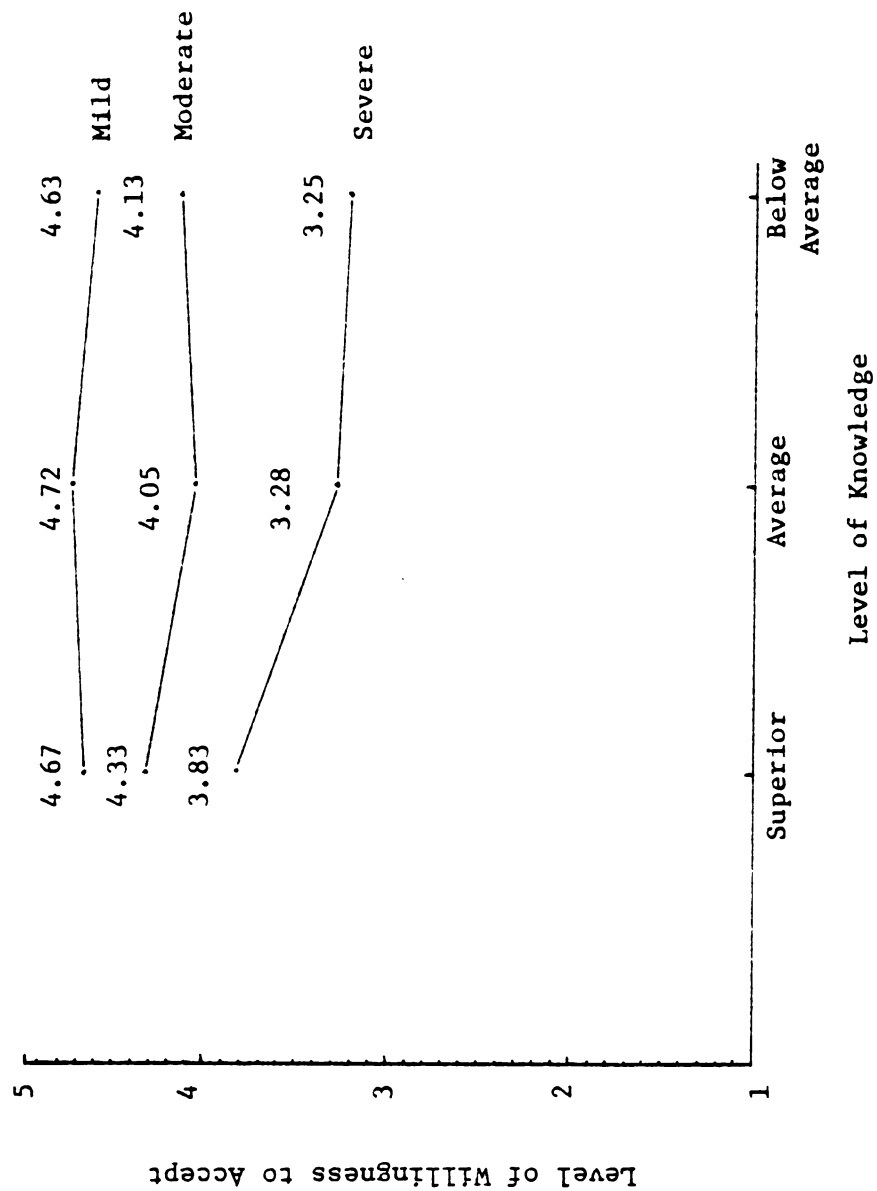


Figure 5.7

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED
CHILD BY LEVEL OF KNOWLEDGE IF OFFERED THE
ASSISTANCE OF AN ADDITIONAL TEACHER
AIDE

moderately handicapped child; and 2) moderately versus severely handicapped child indicated that significant differences existed among teachers at each level of knowledge for each of the two comparisons computed. Therefore, all three alternative hypotheses (4,5,6) were not rejected. The results of these t-test comparisons are shown in Table 5.21.

The change in direction of acceptance of a mildly handicapped child between teachers who had a superior level of knowledge and teachers with an average and below average level of knowledge suggests there may be a main effect for level of knowledge, particularly at the superior level. The difference in the magnitude of the mean willingness to accept a handicapped child across all types of severity of handicap indicates a main effect for severity of a child's handicap. A two-way ordinal interaction between level of knowledge and severity of handicap is possible given the non-parallel nature of the graphed lines in Figure 5.7. Therefore, it can be concluded that the decisions of teachers to accept or not accept a handicapped child into their regular classes are affected by the level of knowledge they have about mainstreaming and handicapping conditions and by the level of severity of the handicapping condition a child has if the teachers are offered the assistance of an additional teacher aide.

H7₇: Alternative hypothesis: Teachers with a superior level of knowledge and are offered the assistance of an experienced resource person will be more

TABLE 5.21
RESULTS OF PAIRED T-TESTS OF SEVERITY OF HANDICAP WITH LEVEL OF
KNOWLEDGE FOR WILLINGNESS OF TEACHERS TO ACCEPT A
HANDICAPPED CHILD IF OFFERED THE ASSISTANCE
OF AN ADDITIONAL TEACHER AIDE

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of T	D. F.	Sig. of T
<u>Superior Knowledge</u>								
Mild vs Moderate	24	4.67 4.33	.482 .702	.34	.565	2.89	23	.008
Moderate vs Severe	24	4.33 3.83	.702 .761	.50	.590	4.15	23	.000
<u>Average Knowledge</u>								
Mild vs Moderate	39	4.72 4.05	.456 .686	.67	.621	6.70	38	.000
Moderate vs Severe	39	4.05 3.28	.686 1.050	.77	.742	6.47	38	.000
<u>Below Average Knowledge</u>								
Mild vs Moderate	16	4.63 4.13	.500 .957	.50	.966	2.07	15	.05
Moderate vs Severe	16	4.13 3.25	.957 1.000	.88	.806	4.34	15	.001

willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₈: Alternative hypothesis: Teachers with an average level of knowledge and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₉: Alternative hypothesis: Teachers with a below average level of knowledge and are offered the assistance of an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

The means for level of severity of handicap by level of knowledge are plotted in Figure 5.8 for the willingness of teachers to accept a handicapped child into their regular classes if offered the assistance of a resource person with experience planning for and working with young handicapped children. The comparison data of the teachers' mean willingness to accept a mildly versus a moderately and a moderately versus a severely handicapped child by level of knowledge revealed significant differences among the

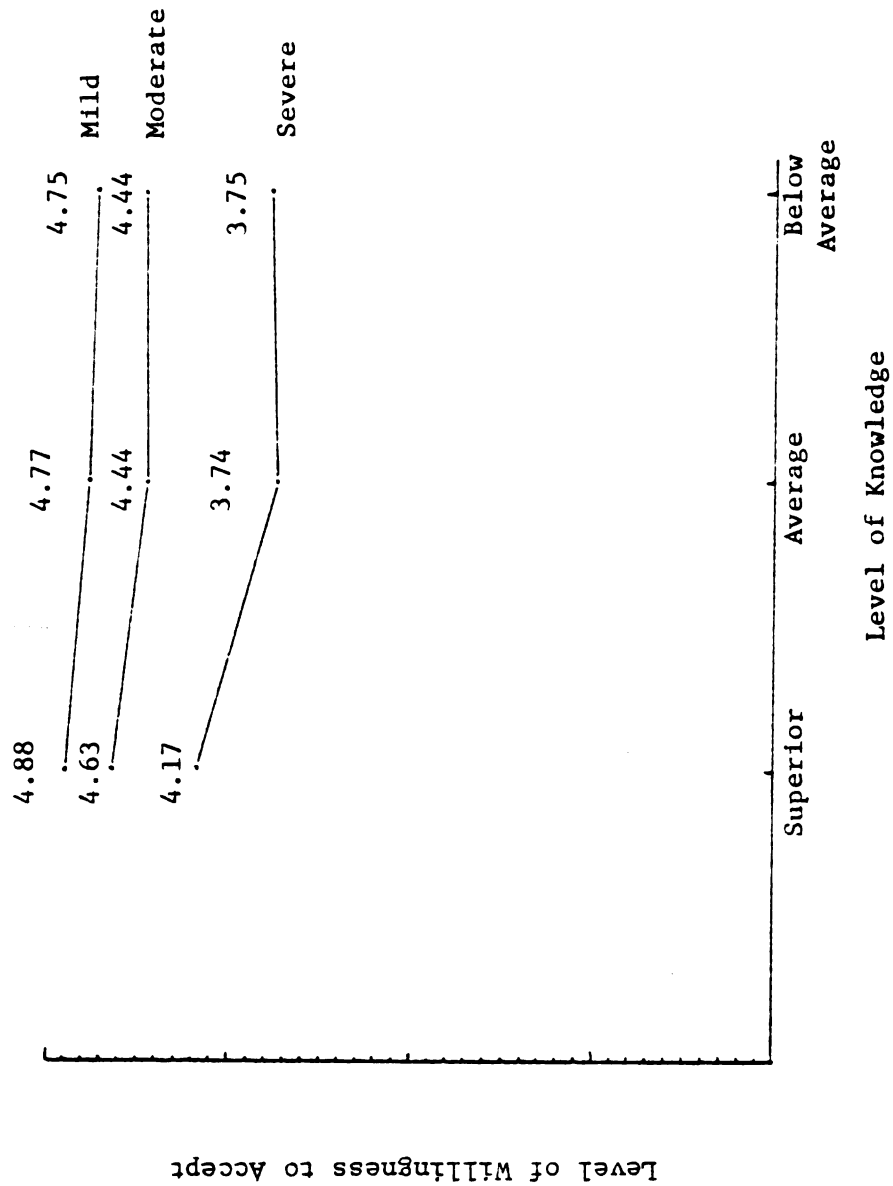


Figure 5.8

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED
CHILD BY LEVEL OF KNOWLEDGE IF OFFERED THE
ASSISTANCE OF AN EXPERIENCED RESOURCE
PERSON

teachers at two levels of knowledge. Teachers who had either a superior or average level of knowledge were significantly more willing to accept a mildly than a moderately and a moderately than a severely handicapped child if offered the assistance of an experienced resource person. Therefore, alternative hypotheses 7 and 8 were not rejected.

Results of t-test comparisons showed no difference among teachers who had a below average level of knowledge about mainstreaming and handicapping conditions willingness to accept a mildly than a moderately handicapped child. Although a .000 level of significance was found for the willingness of these teachers to accept a moderately handicapped child over a severely handicapped child, alternative hypothesis 9 was rejected. The results of the paired t-test comparisons are shown in Table 5.22.

There is very little slope to the lines graphed in Figure 5.8 therefore, the chances of a main effect existing for level of knowledge is very slight. The difference in the degree of willingness to accept a handicapped child by severity of handicap indicates a main effect for severity of handicap. The lines are very nearly parallel, therefore, the possibility of an interaction between severity of handicap and level of knowledge is slight if the teachers are offered the assistance of an experienced resource person.

H7₁₀: Alternative hypothesis: Teachers with a superior level of knowledge and are offered the assistance of an additional teacher aide and an

TABLE 5.22
RESULTS OF PAIRED T-TESTS OF SEVERITY OF HANDICAP WITH LEVEL OF
KNOWLEDGE FOR WILLINGNESS OF TEACHERS TO ACCEPT A
HANDICAPPED CHILD IF OFFERED THE ASSISTANCE OF
AN EXPERIENCED RESOURCE PERSON

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of T	D.F.	Sig. of T
<u>Superior Knowledge</u>								
Mild vs Moderate	24	4.98 4.63	.338 .495	.25	.442	2.77	23	.01
Moderate vs Severe	24	4.63 4.17	.495 .637	.46	.509	4.41	23	.000
<u>Average Knowledge</u>								
Mild vs Moderate	39	4.77 4.44	.427 .968	.33	.898	2.32	38	.02
Moderate vs Severe	39	4.44 3.74	.968 .850	.69	1.127	3.83	38	.000
<u>Below Average Knowledge</u>								
Mild vs Moderate	16	4.75 4.44	.577 .727	.31	.873	1.43	15	.17
Moderate vs Severe	16	4.44 3.75	.727 .856	.69	.602	4.57	15	.000

experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₁₁: Alternative hypothesis: Teachers with an average level of knowledge and are offered the assistance of an additional teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

H7₁₂: Alternative hypothesis: Teachers with a below average level of knowledge and are offered the assistance of an additional teacher aide and an experienced resource person will be more willing to accept a mildly handicapped child than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child.

Figure 5.9 illustrates the graphed means of severity of handicap by level of knowledge for the willingness of teachers to accept a handicapped child into their regular classes if offered the assistance of an additional teacher's aide and an experienced resource person. The t-test comparisons computed to compare the level of knowledge of the teachers

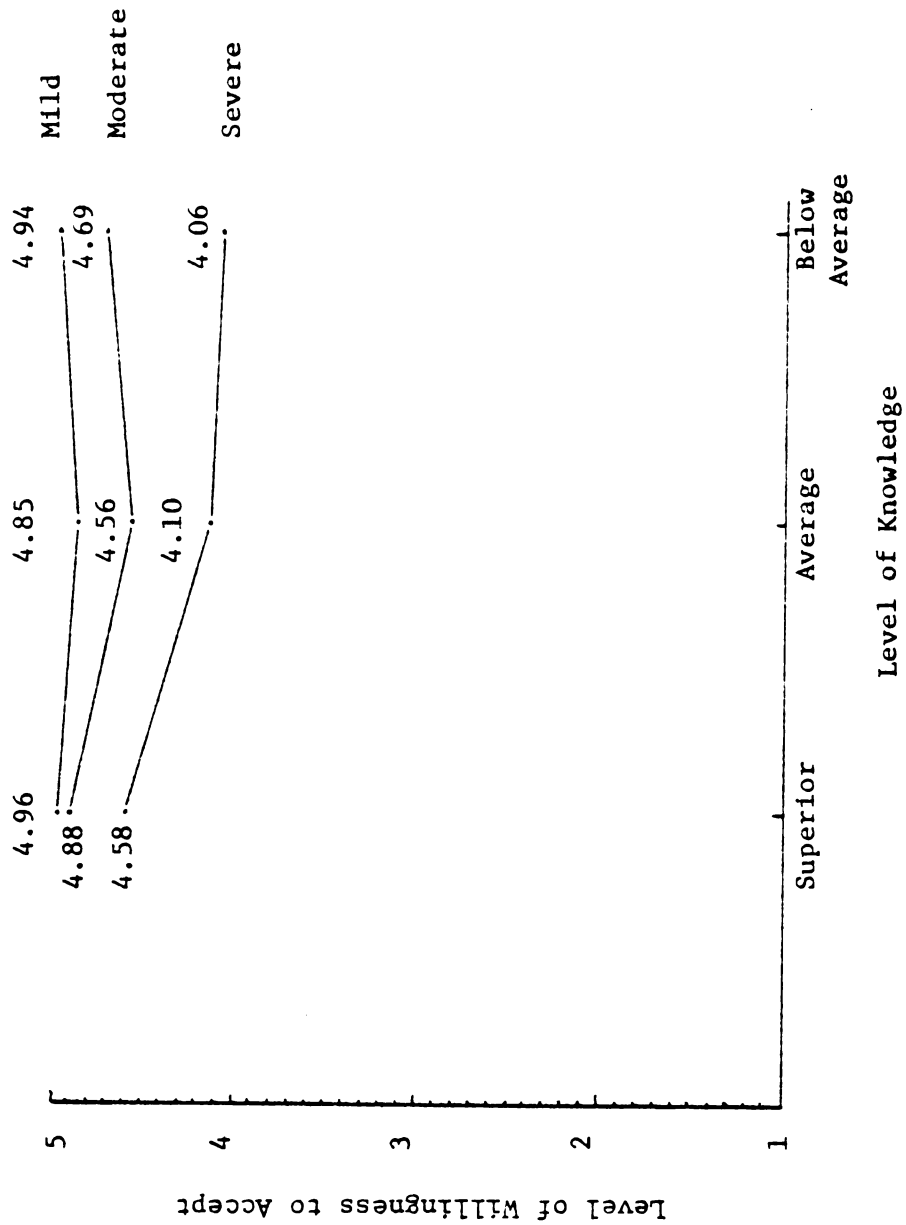


Figure 5.9

LEVEL OF WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED
CHILD BY LEVEL OF KNOWLEDGE IF OFFERED THE
ASSISTANCE OF AN ADDITIONAL TEACHER
AIDE AND AN EXPERIENCED RESOURCE
PERSON

with their willingness to accept a mildly over a moderately and a moderately over a severely handicapped child revealed no significant differences among the willingness of teachers with superior knowledge to accept a mildly over a moderately handicapped child. Although significant differences did exist for the latter comparison, alternative hypothesis 10 was rejected.

The data show that teachers who had an average or below average level of knowledge were more willing to accept a mildly than a moderately handicapped child and more willing to accept a moderately handicapped child than a severely handicapped child. Therefore, alternative hypotheses 11 and 12 were not rejected. The results of the paired t-test comparisons computed on this data are presented in Table 5.23.

The slope of the lines in a graph, according to Steel and Torrie (1960), may or may not indicate a main effect for the variable on the X axis of a graph. In Figure 5.9, the fact that the lines slope downward from superior to average level of knowledge and both up and down from average to below average level of knowledge indicates a main effect for level of knowledge. The degree to which the lines are separated or the difference in the willingness to accept a mildly, moderately and severely handicapped child indicates a main effect for severity of a child's handicap. The non-parallel nature of the graphed lines indicates that there is a two-way interaction between level of knowledge and severity of handicap. The fact that the direction of acceptance shifts

TABLE 5.23
RESULTS OF PAIRED T-TESTS OF SEVERITY OF HANDICAP WITH LEVEL OF KNOWLEDGE
FOR WILLINGNESS OF TEACHERS TO ACCEPT A HANDICAPPED CHILD IF OFFERED
THE ASSISTANCE OF A TEACHER AIDE AND AN EXPERIENCED
RESOURCE PERSON

Variable	N	Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of T	D.F.	Sig. of T
<u>Superior Knowledge</u>								
Mild vs Moderate	24	4.96	.204	.08	.282	1.45	23	.16
Moderate vs Severe	24	4.88	.338	.29	.464	3.08	23	.005
<u>Average Knowledge</u>								
Mild vs Moderate	39	4.85	.432	.28	.887	1.99	38	.05
Moderate vs Severe	39	4.56	.940	.46	1.097	2.63	38	.01
<u>Below Average Knowledge</u>								
Mild vs Moderate	16	4.94	.250	.25	.447	2.24	15	.04
Moderate vs Severe	16	4.69	.479	.63	.806	3.10	15	.007

from more acceptant of a mildly and moderately handicapped child for teachers with an average to a below average level of knowledge to slightly less willing to accept a severely handicapped child for teachers with an average to a below average level of knowledge suggests that the interaction between level of knowledge and severity of handicap may be disordinal. Therefore, the combined effect of their own knowledge and the severity of a child's handicap have an impact on the willingness of teachers to accept a handicapped child if offered the assistance of an additional teacher aide and a resource person. However, the direction of acceptance becomes less positive if the teachers have an average or below average level of knowledge about mainstreaming and handicapping conditions and the child happens to be severely handicapped. Overall, however, regardless of level of knowledge, teachers remain very willing to accept any type of handicapped child when offered maximum assistance.

Hypothesis 8

H8: Null hypothesis: There is no difference among PATHWAYS, Head Start and community center teachers' willingness to accept a mildly, moderately or severely handicapped child in their classroom with respect to the type of assistance they would be offered.

Separate paired t-tests were computed comparing the willingness of PATHWAYS and Head Start and of Head Start and community center teachers to accept a: 1) mildly;

2) moderately; or 3) severely handicapped child if offered four different types of assistance in the classroom. The data indicated significant differences ($\alpha = .03$) existed between PATHWAYS and Head Start teachers on their willingness to accept a severely handicapped child if offered the assistance of an additional teacher aide. Therefore, the null hypothesis was rejected. However, given that there were no other significant differences among the teachers across types of centers in which they were employed, all eighteen of the alternative hypotheses were rejected.

In Figures 5.10-5.13 the graphed means are shown of the willingness of teachers in each type of center to accept a handicapped child if offered: 1) no additional assistance (Figure 5.10); 2) an additional teacher aide (Figure 5.11); 3) an experienced resource person (Figure 5.12); and 4) an additional teacher aide and an experienced resource person (Figure 5.13). The slope of the lines on which the means are plotted indicate a slight possibility of a main effect for type of center. The likelihood of a main effect for type of center is fairly high for teachers' acceptance of a handicapped child if offered the assistance of a teacher aide or if offered the assistance of a resource person given the greater slope or direction of the lines toward less willing to accept a moderately or severely handicapped child from PATHWAYS to community center teachers.

There appears to be a main effect for severity of handicap given the difference in the degree to which

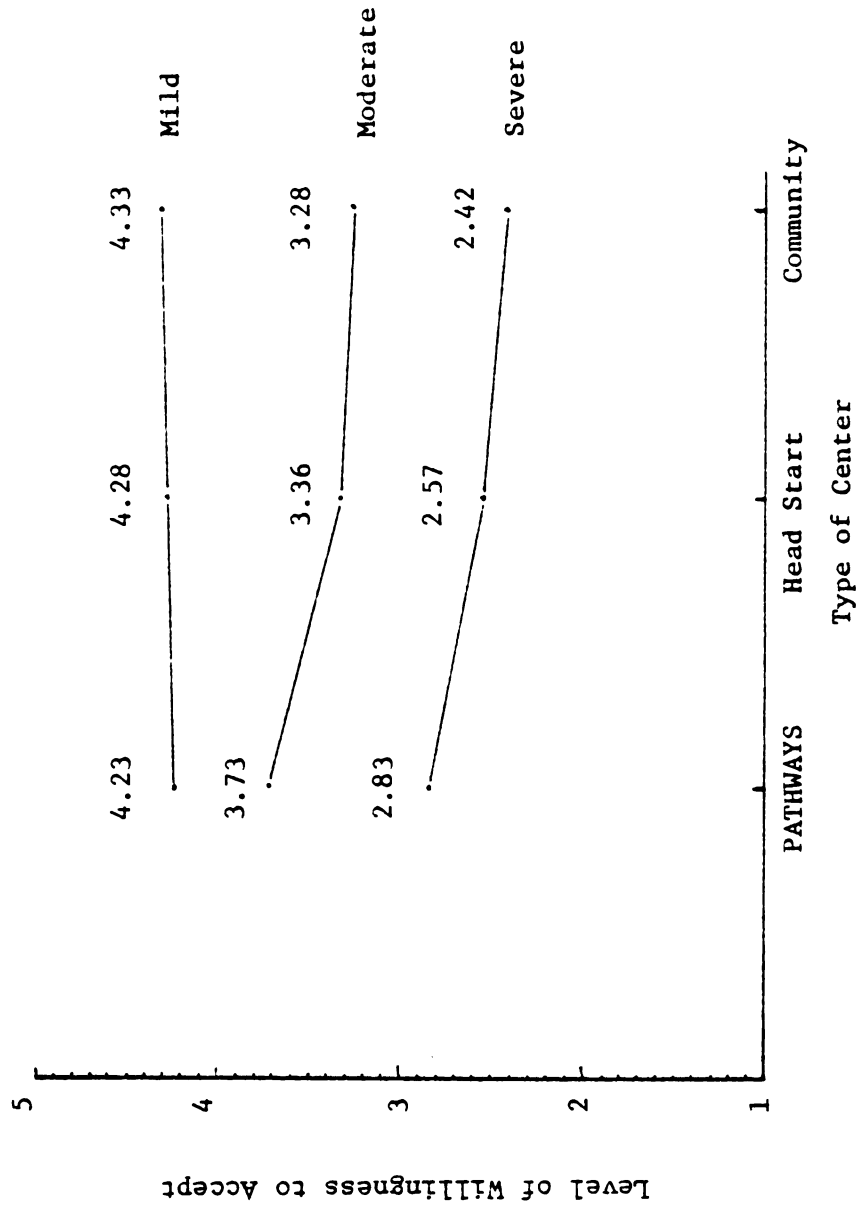


Figure 5.10

MEANS OF WILLINGNESS OF TEACHERS IN THREE TYPES
OF CENTERS TO ACCEPT A HANDICAPPED CHILD
IF OFFERED NO ADDITIONAL ASSISTANCE

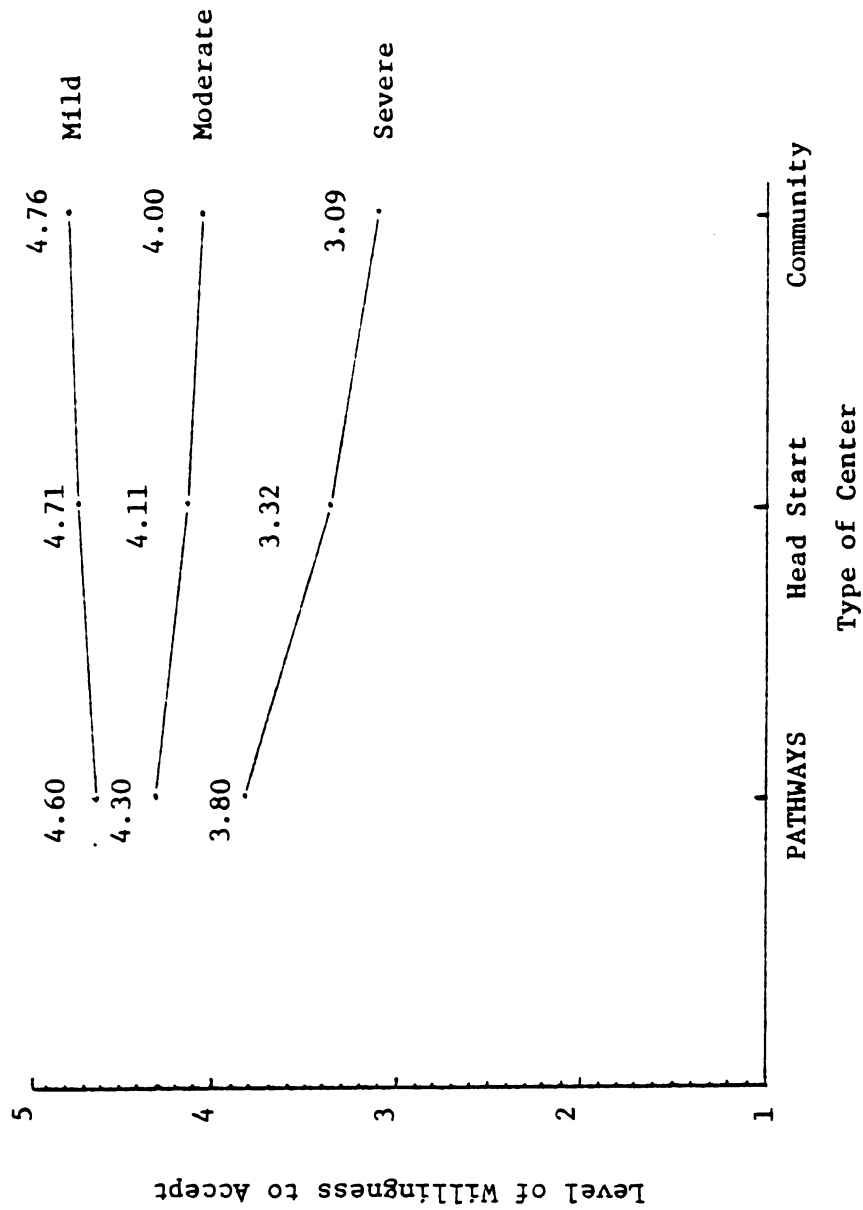


Figure 5.11

MEANS OF WILLINGNESS OF TEACHERS IN THREE TYPES OF CENTERS
TO ACCEPT A HANDICAPPED CHILD IF OFFERED THE
ASSISTANCE OF AN ADDITIONAL TEACHER AIDE

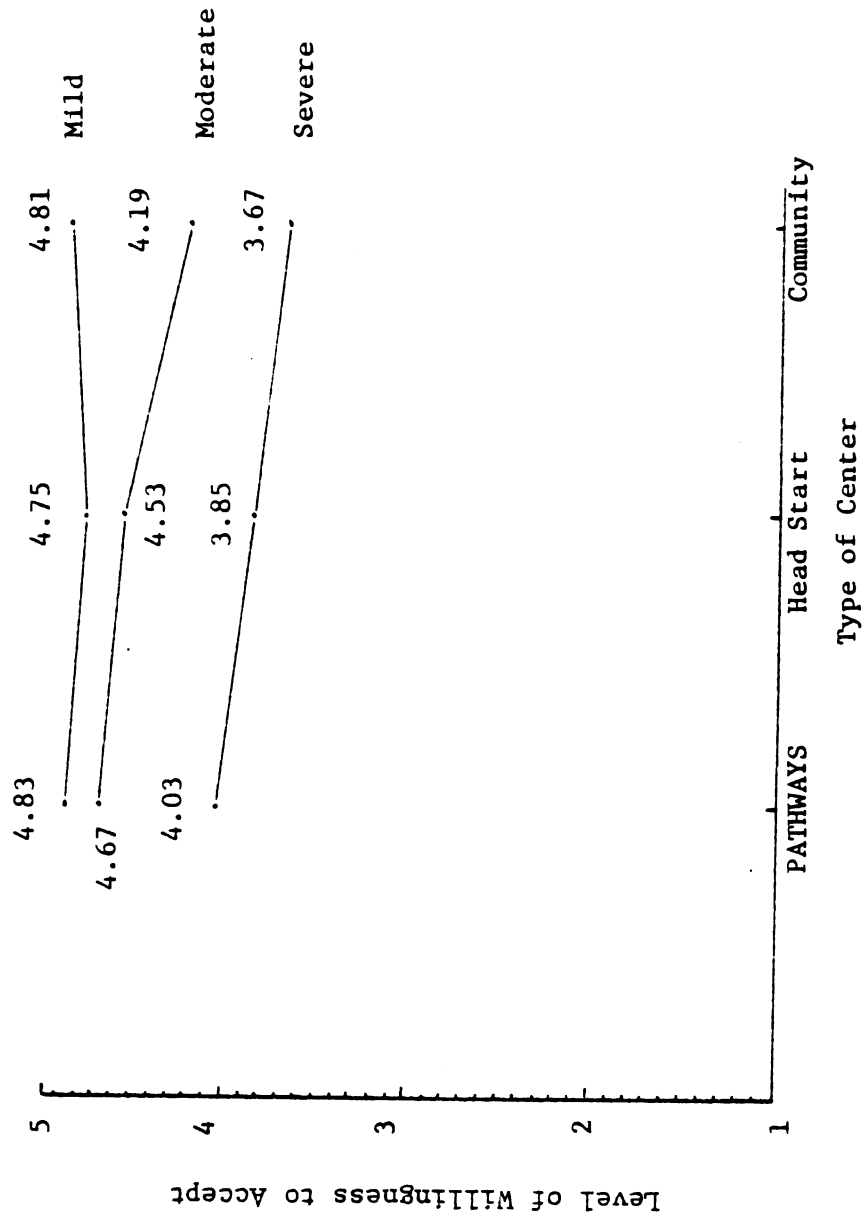


Figure 5.12

MEANS OF WILLINGNESS OF TEACHERS IN THREE TYPES OF CENTERS
TO ACCEPT A HANDICAPPED CHILD IF OFFERED THE
ASSISTANCE OF AN EXPERIENCED RESOURCE
PERSON

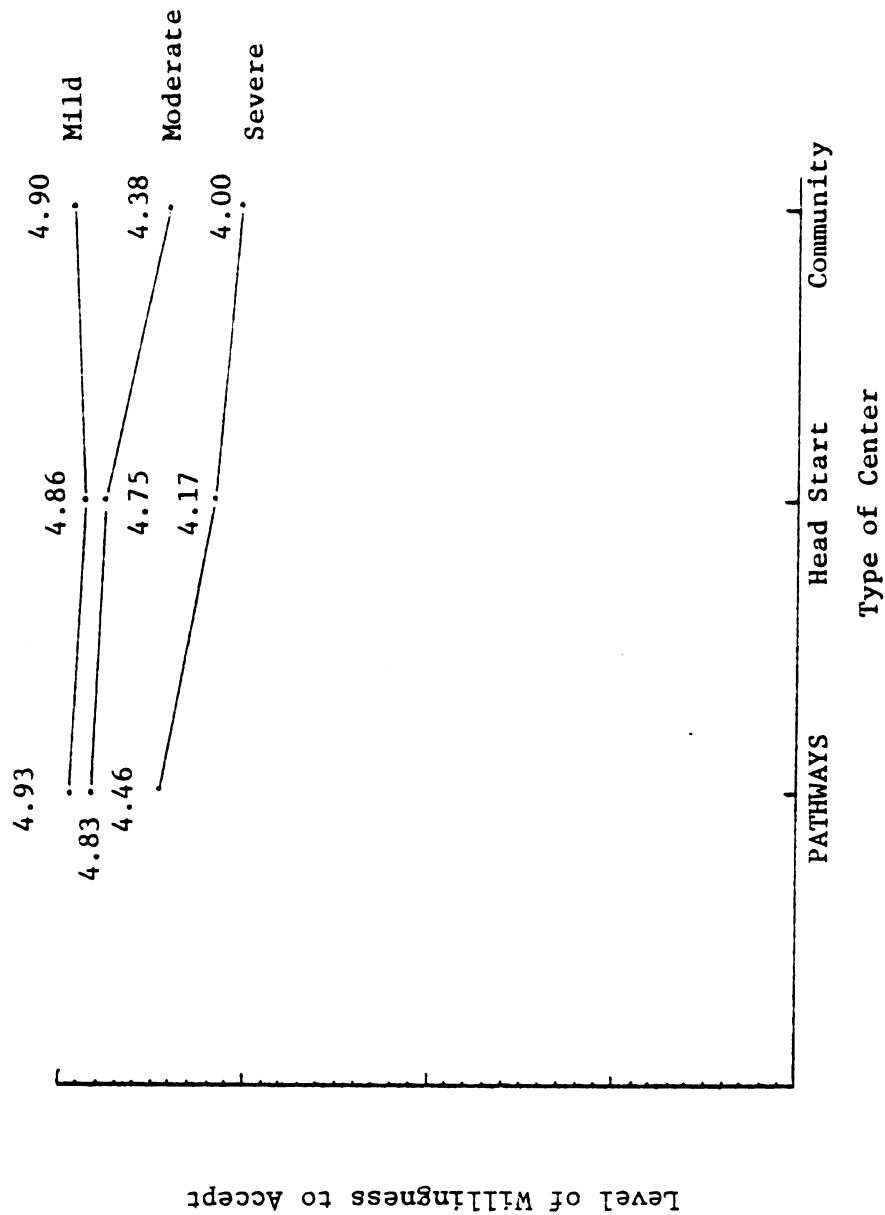


Figure 5.13

MEANS OF WILLINGNESS OF TEACHERS IN THREE TYPES OF CENTERS
TO ACCEPT A HANDICAPPED CHILD IF OFFERED THE
ASSISTANCE OF AN ADDITIONAL TEACHER AIDE
AND AN EXPERIENCED RESOURCE PERSON

teachers in each type of center are willing to accept a moderately or severely handicapped child if offered no additional assistance, an additional teacher aide or an experienced resource person. The lines in each of the figures are not parallel, therefore, a two-way interaction is present between the type of center in which the teachers were employed and the severity of a child's handicap with respect to the willingness of teachers to accept a handicapped child into their regular classrooms. Again, teachers in any type of center are willing to accept any handicapped child if offered maximum assistance.

Hypothesis 9

H9: Null hypothesis: There is no difference in the teachers' willingness to accept a mildly, moderately or severely handicapped child into their regular classrooms.

The grand means of willingness to accept handicapped children by all of the teachers were computed by adding the mean acceptance of a handicapped child for each type of assistance offered by severity of handicap and dividing by four. For example, the grand mean for acceptance of a mildly handicapped child equals the means of acceptance of a mildly handicapped child if offered no additional assistance plus an additional teacher aide plus an experienced resource person plus an additional teacher aide and an experienced resource person divided by four. The grand means

are plotted in Figure 5.14.

Paired t-tests comparing the grand means of the willingness of teachers to accept a handicapped child by severity of handicap, presented in Table 5.24, indicated that significant differences existed among the willingness of the teachers to accept a mildly, moderately or severely handicapped child into their regular classes. The decision rule was to reject the H_0 if the T values were equal to or greater than the .05 level of significance. Therefore, the null hypothesis was rejected.

H_{9_1} : Alternative hypothesis: Teachers are more willing to accept mildly handicapped children into their classrooms than moderately handicapped children.

H_{9_2} : Alternative hypothesis: Teachers are more willing to accept moderately handicapped children into their classrooms than severely handicapped children.

The data indicated that the teachers were significantly more willing to accept mildly handicapped children than moderately handicapped children into their regular classrooms. The teachers were also more willing to accept moderately handicapped children into their classrooms than severely handicapped children. Therefore, alternative hypotheses 1 and 2 were not rejected. The teachers were, on balance, more than willing to accept mildly and moderately handicapped children. Those children with severe handicapping conditions

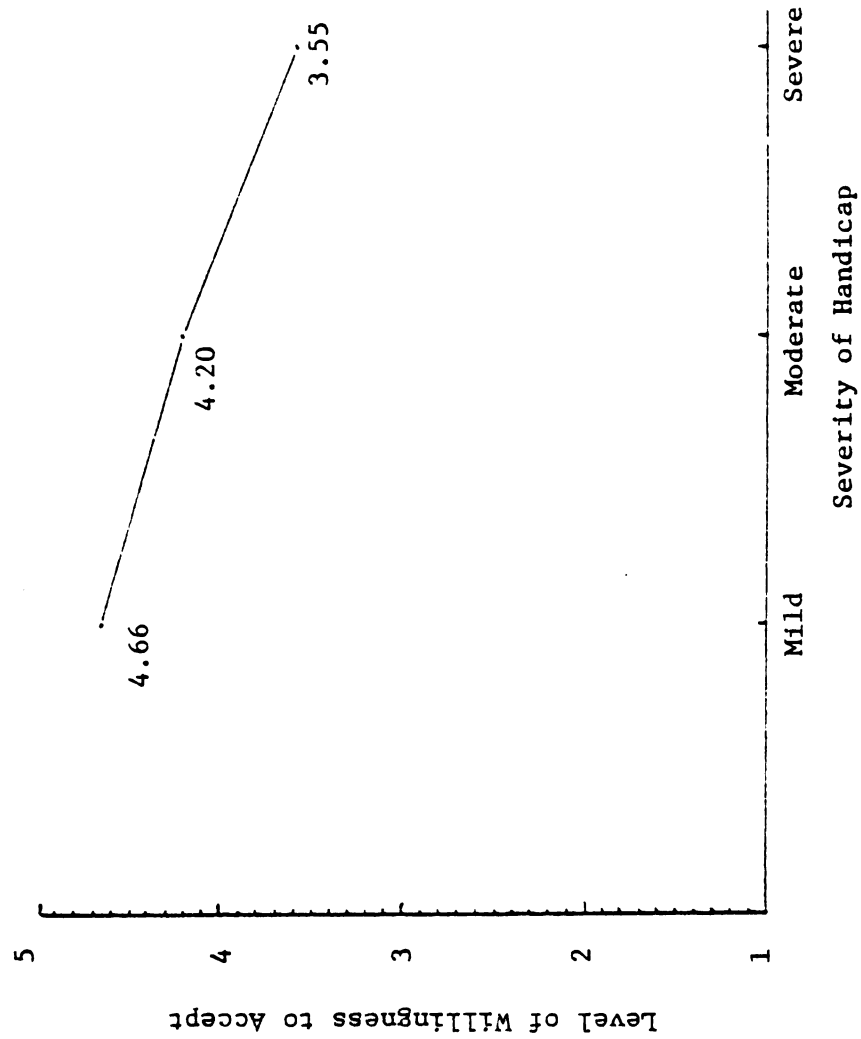


Figure 5.14
GRAND MEANS OF WILLINGNESS OF TEACHERS TO
ACCEPT A HANDICAPPED CHILD

TABLE 5.24

RESULTS OF T-TEST COMPARISONS OF GRAND MEANS OF THE WILLINGNESS
OF TEACHERS TO ACCEPT A MILDLY, MODERATELY OR SEVERELY
HANDICAPPED CHILD INTO THEIR CLASSES

Variable	N	Grand Mean	Standard Deviation	Difference Mean	Standard Deviation	Value of T	D.F.	Sig. of T
Mildly		4.66	.382					
vs	79			.46	.543	7.56	78	.000
Moderately		4.20	.584					
Moderately		4.20	.584					
vs	79			.65	.578	10.08	78	.000
Severely		3.55	.749					

would not be accepted as easily, but are far from being rejected by the teachers.

Summary of Analyses

A summary of the hypotheses tested, significance level found and an indication of whether the hypothesis was rejected or not rejected is given in Figure 5.15.

FIGURE 5.15
SUMMARY OF ANALYSES

Null Hypothesis Tested	Significance Level	Hypothesis Rejected or Not Rejected

1. No difference in PATHWAYS, Head Start and community child care center teachers' attitudes toward mainstreaming.		Rejected
	H ₁ .002	Not Rejected
	H ₂ NS	Rejected
	H ₃ .0003	Not Rejected
	H ₄ NS	Rejected
	H ₅ .01	Not Rejected
	H ₆ NS	Rejected

2. No difference in PATHWAYS, Head Start and community center teachers' level of knowledge about mainstreaming and handicapping conditions.		Rejected
	H ₁ .003	Not Rejected
	H ₂ NS	Rejected

3. No difference in PATHWAYS, Head Start and community center teachers' amount of experience interacting with handicapped children.	NS	Not Rejected

4. No relationship among PATHWAYS, Head Start and community center teachers' amount of experience interacting with handicapped children with respect to their attitudes toward mainstreaming.	NS	Not Rejected

5. No relationship among PATHWAYS, Head Start and community center teachers' level of knowledge about mainstreaming and handicapping conditions with respect to their attitudes toward mainstreaming.		.004, .02 Rejected
	H ₁ .005, .0005	Not Rejected
	H ₂ NS	Rejected

6. No relationship among the amount of experience interacting with young handicapped children teachers have had and the type of assistance they would be offered in mainstreaming a mildly, moderately or severely handicapped child with respect to their willingness to accept a handicapped child into their regular classrooms.			Rejected
	H ₁	.004, .000	Not Rejected
	H ₂	.000, .000	Not Rejected
	H ₃	.000, .000	Not Rejected
	H ₄	.01 , .000	Not Rejected
	H ₅	.01 , .000	Not Rejected
	H ₆	.000, .000	Not Rejected
	H ₇	.02 , .001	Not Rejected
	H ₈	NS , .001	Rejected
	H ₉	.009, .000	Not Rejected
	H ₁₀	NS	Rejected
	H ₁₁	NS	Rejected
	H ₁₂	.003, .000	Not Rejected

7. No relationship among the level of knowledge about mainstreaming and handicapping conditions teachers have and the type of assistance they would be offered in mainstreaming a mildly, moderately or severely handicapped child with respect to their willingness to accept a handicapped child into their regular classrooms.			Rejected
	H ₁	.000, .000	Not Rejected
	H ₂	.000, .000	Not Rejected
	H ₃	.01 , .001	Not Rejected
	H ₄	.008, .000	Not Rejected
	H ₅	.000, .000	Not Rejected
	H ₆	.05 , .001	Not Rejected
	H ₇	.01 , .000	Not Rejected
	H ₈	.02 , .000	Not Rejected
	H ₉	NS , .000	Rejected
	H ₁₀	NS , .005	Rejected
	H ₁₁	.05, .01	Not Rejected
	H ₁₂	.04 , .007	Not Rejected

8. No difference among PATHWAYS, Head Start and community center teachers' willingness to accept a mildly, moderately or severely handicapped child in their classroom with respect to the type of assistance they would be offered.	.03		Rejected
	$H_1 - H_{18}$	NS	Rejected

9. No difference in the teachers' willingness to accept a mildly, moderately or severely handicapped child into their regular classrooms.	.000		Rejected
	H_1	.000	Not Rejected
	H_2	.000	Not Rejected

CHAPTER VI

SUMMARY, LIMITATIONS, FINDINGS AND IMPLICATIONS

Chapter VI begins with a brief summary of the purposes of the study. Following the summary, limitations regarding non-respondent bias, respondent bias and of the scope of the study are discussed. A summary of the findings are enumerated. Finally, implications for further research and implications for instructional programs based on the findings of the study are discussed.

Summary

The primary purposes of this study were to determine, describe and compare the attitudes, knowledge and experience of preprimary teachers employed in PATHWAYS mainstreamed, Head Start mainstreamed and community non-mainstreamed centers regarding the mainstreaming of young handicapped children into existing child care programs. A secondary purpose of the study was to determine if the degree which preprimary teachers are willing to accept young handicapped children into their regular classrooms is a function of one or more of the following four factors: 1) amount of experience interacting with young handicapped children; 2) level of knowledge about mainstreaming and handicapping conditions; 3) severity of a child's handicapping condition; and/or 4) type of assistance offered in the mainstreaming process.

LimitationsNon-respondent Bias

This study was limited by non-respondent bias because, of the one hundred and fifty sets of questionnaires that were sent to preprimary teachers, only fifty-three percent were returned. A breakdown of the total number of non-respondents by type of center revealed that forty percent of the PATHWAYS and forty percent of the Head Start teachers surveyed did not respond. Of the community center teachers surveyed, fifty-eight percent chose not to participate in the study. All non-respondents from the PATHWAYS group were teachers employed in community programs participating in the PATHWAYS Outreach program. No clear pattern for non-participation by Head Start and community center teachers could be established.

The most plausible explanations for teacher non-response are that: 1) they did not have the time to complete the questionnaires since data collection took place at the end of the school year when teachers are generally most busy; 2) the teachers knew very little about handicapped children and felt they could not adequately answer the questions; and/or 3) the teachers were biased against handicapped persons and/or the concept of mainstreaming thus limiting their willingness to respond to three questionnaires on these subjects.

Respondent Bias

Possible bias by those teachers who responded to this survey is a limitation of the study. Three factors imply that such bias existed among the respondents. First, a majority of the respondents had college degrees in either Elementary Education or Child Development, thus providing them with considerable knowledge about the individual and educational needs of young children and a firm basis for replying to the questionnaires. Second, most of the respondents had more than one year of experience teaching in a child care center and had had some experience interacting with young handicapped children. Such prior experiences would bias teacher responses on the questionnaires. Similarly, respondents who had had no prior experience interacting with handicapped children may have been biased toward handicapped children and/or mainstreaming as an acceptable educational alternative for the handicapped. Finally, several of the respondents were classified as both directors and teachers within a center while other subjects had only teaching responsibilities. The administrative concerns of the director/teachers regarding mainstreaming (i.e. budget, program changes, adequate staff) may have influenced or biased their responses in a manner different from respondents who had only teaching responsibilities to consider. In other words, the perspective from which the director/teachers responded to the questionnaires was probably different than the perspective of respondents who were just

teachers.

Scope of the Study

The fact that this study is a doctoral dissertation rather than a wide scale study limited the scope of the study. Only one area of attitudes toward mainstreaming is investigated in this study. To investigate this topic using a truly ecological approach would involve surveying a representative sample of all persons who have an impact on the educational options which are made available for handicapped children. Such a study would include a survey of the attitudes of such persons as: 1) parents of handicapped and non-handicapped children; 2) special educators; 3) providers of special services to the handicapped (e.g. psychologists, physicians, home trainers, physical therapists); and 4) state and local government representatives.

Findings

The primary findings of this study are enumerated and underlined. Following each finding is a brief review of the results related to the finding and a discussion of the assumptions which can be made about the finding.

1. PATHWAYS teachers had significantly more positive attitudes toward mainstreaming than either Head Start or community center teachers.

Results of the data analyses show that PATHWAYS teachers more often than Head Start and community center teachers: 1) were supportive of providing educational

alternatives for young handicapped children; 2) believed that young handicapped children, "normal" children, and parents of handicapped children could benefit from a mainstreaming experience; and 3) were less skeptical about mainstreaming as an acceptable educational alternative for handicapped children. The data indicate no significant differences between the attitudes of Head Start and community center teachers on any of the three factors listed above.

These results show that teaching in a mainstreamed classroom or center is not one of the primary factors which influence the formation of positive teacher attitudes toward mainstreaming. The significant differences in attitudes toward mainstreaming between PATHWAYS (mainstreamed) and Head Start (mainstreamed) teachers supports this assumption. The homogeneity of responses by Head Start teachers and community center (non-mainstreamed) teachers also provides a basis for this assumption.

2. There was no positive relationship between the type of center in which the teachers were employed and the amount of experience they had interacting with young handicapped children with respect to their attitudes toward mainstreaming.

A main effect was found for the type of center in which the teachers were employed at the .001 level of significance with respect to the attitudes of teachers toward mainstreaming. No main effect was evidenced for amount of experience interacting with handicapped children regarding the

attitudes of teachers toward mainstreaming. Post hoc analyses of these data indicated that the attitudes of the PATHWAYS teachers were significantly ($\alpha = .05$) different than the attitudes of Head Start and community center teachers.

These findings imply that the type of center in which a teacher is employed and not amount of experience has an influence on the formation of positive attitudes toward mainstreaming. Since the PATHWAYS teachers had significantly more positive attitudes than either the Head Start or the community center teachers, it is assumed that one or more aspects particular to the PATHWAYS program and its staff are instrumental in facilitating positive attitudes among the teachers. The basic premises which form the ecological perspective from which PATHWAYS operates may provide one explanation for the differences in attitudes expressed by these teachers and the attitudes of teachers in the other two groups. First, teacher participation in the PATHWAYS project is completely voluntary. Each teacher freely chooses to accept or not accept a handicapped child into his/her classroom. Second, before a handicapped child is placed in a classroom, the PATHWAYS staff and the child's parents review and observe the child's characteristics to determine if the child is a "likely candidate" for integration and if the child could benefit from such an experience. Third, if a child is to be mainstreamed, classroom placement and a program are matched and molded (fit) to the individual needs

and abilities of the handicapped child. In other words, the staff and parents discuss different classrooms (i.e. climate of the class, characteristics of the children; physical environment), teacher qualifications and personality and the type of program offered in the class to see if what is available would match or fit the developmental needs and abilities of the child. This match/fit process of placement and programming and the voluntary participation by teachers are considered by the PATHWAYS staff and teachers as very important to the success or failure of mainstreaming and to the development of positive attitudes by the teachers (Carlson, 1978). Other aspects of the project such as on-site, intra-classroom inservice training, the provision of additional classroom support personnel, and parental support and input into the child's program help to form the ecological perspective under which the program successfully operates.

PATHWAYS' consideration of the total ecology of the young handicapped child and consideration of the needs, abilities and willingness of the teachers to accept a handicapped child are unique to this program. These factors may, at least partially, explain why the attitudes of PATHWAYS teachers toward mainstreaming were significantly more positive than the attitudes of either Head Start or community center teachers.

3. Significant main effects existed for both type of center and level of knowledge about mainstreaming and handicapping conditions regarding the attitudes of teachers toward mainstreaming.

The data revealed the same results as were noted in earlier findings regarding the differences in attitudes toward mainstreaming by PATHWAYS, Head Start and community center teachers. PATHWAYS teachers had the most positive attitudes of the three groups of teachers and the attitudes of Head Start and community center teachers were homogeneous.

The data also show that teachers with extensive knowledge about mainstreaming and handicapping conditions had significantly more positive attitudes toward mainstreaming than teachers with either an average or below average level of knowledge. No significant differences in attitudes were noted among teachers with an average or below average level of knowledge. Additional analyses regarding the differences in levels of knowledge among the three groups of teachers indicated that PATHWAYS teachers had significantly greater knowledge about mainstreaming and handicapping conditions than did Head Start or community center teachers.

It is possible to make several assumptions based on these results. They are that: 1) the development of positive teacher attitudes is, at least partially, a function of increasing knowledge about mainstreaming and handicapping conditions; 2) the more extensive level of knowledge

PATHWAYS teachers had, compared to the knowledge of either Head Start or community center teachers, at least partially explains their more positive attitudes toward mainstreaming; and 3) a positive relationship between the type of center in which a teacher is employed and a higher level of knowledge about mainstreaming provides a common basis for the formation of positive attitudes toward mainstreaming by pre-primary teachers.

4. There was a positive relationship among the level of knowledge, amount of experience, type of assistance (support) offered to teachers, and the severity of a child's handicap regarding the willingness of all of the teachers to accept a handicapped child into their regular classrooms.

Results of analyses regarding the willingness of teachers to accept a mildly, moderately or severely handicapped child into their classrooms revealed that: 1) the type of center in which a teacher is employed does not have significant impact on the degree to which teachers are willing to accept a handicapped child into their classrooms; 2) when given as much assistance as possible, teachers at all levels of experience and knowledge are willing to accept a handicapped child, regardless of severity of handicapping condition, into their regular classes; 3) teachers with a medium amount of experience (30 to 121 hours) are always willing to accept a mildly handicapped child if offered the assistance of an experienced resource person in the implementation of the mainstreaming process. Teachers with a high (122 to 3,000

hours) or a low (0 to 29 hours) amount of experience were more willing to accept a mildly or moderately handicapped child than a severely handicapped child into their programs. Severely handicapped children would not be accepted as easily as children with less severe handicaps, but are far from being rejected.

It is evident, from the above findings, that the four variables of amount of experience, level of knowledge, type of assistance offered and severity of a child's handicap all have an impact on the degree which teachers are willing to accept a handicapped child into their regular classes.

The higher (greater) the amounts of knowledge, experience and assistance teachers have to support them in the mainstreaming process and the less severe the child's handicapping condition, the more willing they will be to accept a child with any type of handicapping condition. However, regardless of their level of knowledge and experience, teachers are most willing to accept a child with any type of handicapping condition if offered the greatest amount of assistance. Therefore, the degree which teachers are willing to accept a handicapped child is primarily a function of the amount or type of assistance they are offered.

The fact that teachers with a medium amount of experience were more willing to accept a handicapped child than were teachers with a high or low amount of experience may be related to the following two factors. First, the definition

of a medium amount of experience (between 30 and 121 hours) used in this study may have biased the results. Logically, 30 to 121 hours of experience is not really a great deal of experience. The divisions of levels of experience were formulated on a basis of how the amount of experience all of the teachers had clustered within the range of 0 to 3,000 hours. Second, generally people who have had some experience but not a great deal of experience tend to be somewhat over-confident in their abilities to cope with a situation, when asked, than persons who have a great deal of experience or those with little or no experience. The latter groups of people tend to give somewhat longer consideration about the relationship between their abilities and the situation than do those with some experience. An example of this phenomenon would be that: Persons with some experience driving a car are more likely ("at risk") to have an accident than persons who have many years of experience or those who have very little or no experience driving. The experienced person tends to be more of a defensive driver who is alert to what is happening around him. The person with little or no experience tends to drive slower and be constantly aware of the rules and regulations of driving. The driver with a medium amount of experience, however, may tend to be over-confident in his/her ability to drive and less alert to traffic conditions, and therefore more "at risk" to having an accident.

An explanation for the reason why amount of experience

is not a predictor of positive attitudes toward mainstreaming but has a significant influence on the degree of willingness of teachers to accept a handicapped child was suggested by Krathwohl, et al. (1964). These authors imply that an increase in knowledge is directly related to changes in attitudes but is not a predictor of changes in behavior, whereas, the combination of knowledge and varied experiences are needed in order to predict the readiness or willingness of a person to act in a manner which is consistent with his/her attitudes.

5. There were no significant differences among the three groups of teachers regarding age, sex, racial or ethnic background, parental status, or the amount of experience they had had interacting with young handicapped children.

A majority of the teachers were females (95%) between twenty and thirty years of age (61%) and of a caucasian or white (90%) racial or ethnic background. Approximately one-half of the teachers were parents (49.4%) and one-half (50.6%) were not parents. Generally, the same number of teachers had a high, medium, or low amount of experience interacting with young handicapped children.

These variables were found to have very little or no impact on the formation of positive or negative attitudes by teachers toward mainstreaming.

6. Significant differences did exist among the three groups of teachers regarding the following variables:
1) amount of education; 2) type of college degree earned;
3) attainment of teaching certification; 4) kind of teaching certification; and 5) number of inservice training sessions and college courses taken related to meeting the needs of handicapped children.

The data show that one hundred percent of the PATHWAYS teachers, 85.7 percent of the community center teachers and 67.9 percent of the Head Start teachers had attended a college or university. Fifty-five percent of the teachers had earned a Bachelor's degree. Forty percent of the PATHWAYS teachers, 9 percent of the community center teachers and 7.1 percent of the Head Start teachers had earned a Master's degree. Of the teachers who had earned a teaching certificate, 49 percent were PATHWAYS teachers, 36.6 percent were Head Start teachers, and 20 percent were community center teachers. Fifty-three percent of the teachers who were certified had either Elementary Education or Elementary Education with an Early Childhood Education Endorsement certification. Seventy-three percent of the PATHWAYS teachers, 68 percent of the community center teachers, and only 9.5 percent of the Head Start teachers had attended inservice training sessions related to handicapped children. PATHWAYS teachers had taken more courses related to meeting the needs of handicapped children than either of the other two groups of teachers. Community center teachers had

taken the fewest number of courses in this area.

These variables have a significant impact on the development of positive attitudes toward mainstreaming and a greater willingness to accept handicapped children among teachers. The evidence presented in this study provides a great deal of support for the assumption that the development of positive attitudes toward mainstreaming and a willingness to accept handicapped children into regular programs is, to a large extent, a function of the development of a high level of knowledge about mainstreaming and handicapping conditions. Given that a majority of the teachers who had the most positive attitudes toward mainstreaming (i.e. PATHWAYS teachers) also had college degrees and teaching certification in Elementary Education and/or Child Development, it is inferred that the acquisition of knowledge about "normal" development of young children is highly related to positive attitudes toward mainstreaming. If teachers are able to approach mainstreaming from a developmental perspective, they, evidently, are more confident in their abilities to meet the needs of handicapped children and are more willing to accept such children into their classrooms.

Implications

Implications for Further Research

The limitations and findings of this study imply that further research is needed in the following areas:

1. Similar studies need to be conducted regarding the relationships that exist among experience, knowledge,

severity of a child's handicapping condition and type of assistance offered to teachers with respect to their attitudes toward mainstreaming. Such studies should be conducted using larger and more representative samples of pre-primary teachers in the United States. The findings of this study are, in all probability, not generalizable to other groups of Head Start or community center teachers.

2. The findings that those teachers who were employed in child care centers (PATHWAYS) which approach mainstreaming from an ecological perspective had the most positive attitudes toward mainstreaming and the highest level of knowledge about mainstreaming and handicapping conditions suggests that further and extended investigations are needed regarding the impact of the various aspects involved in the use of this perspective on the formation of positive attitudes toward mainstreaming. Such research efforts would attempt to further clarify the function of: a) knowledge; b) experience; c) voluntary participation; d) the process of matching and fitting the educational placement and program to the needs and abilities of the handicapped child; e) parental input; and f) adequate personnel support in the classroom on the formation of positive attitudes toward mainstreaming.

To obtain an ecological perspective of the attitudes of all people who, at one time or another, are involved in promoting the growth and development of handicapped children, such studies as mentioned above would need to include

the following groups of people: a) parents of handicapped and non-handicapped children; b) special educators; c) home trainers; d) child care center licensing agents; e) state and local government representatives; and f) other special services providers such as physicians, therapists and social workers.

3. The fact that the results of this study only reflect the attitudes of teachers at one point in time suggests a need for further research regarding the development and change in attitudes toward mainstreaming over time. Although longitudinal research which would assess the change in attitudes over a long period of time would probably provide more information regarding the formation of and changes in attitudes toward mainstreaming, such studies tend to be very expensive and involve more of a time commitment by researchers than is often possible. A series of studies using a pretest-posttest design might be more realistic. The foci of such studies could include the functions of increasing knowledge, varied experiences, types of assistance (support) needed to implement a mainstreaming program, and the severity of a child's handicap on the development of positive teachers' attitudes toward mainstreaming and the degree to which teachers are willing to accept a handicapped child into their regular classes.

4. Further analyses are needed comparing background factors of respondents with their attitudes toward and willingness to participate in mainstreaming efforts.

Given the limited sample size of this study, it is difficult to ascertain how much impact background factors such as age, sex, racial and ethnic background, parental status and amount of experience interacting with handicapped children have on the formation of positive or negative attitudes toward mainstreaming. Although there is a great deal of support in the findings of this study to suggest that several educational variables do have an effect on attitude development in that they are related to the acquisition of knowledge, further research is needed to verify this assumption. The educational variables which are most likely to affect the formation of positive or negative attitudes toward mainstreaming are: a) amount of education attained; b) type of college degree earned; c) attainment of teaching certification; d) type of certification attained; e) number of workshops or inservice training sessions attended related to meeting the needs of handicapped children; and f) the number of college courses taken related to child growth and development and the characteristics and needs of handicapped children.

5. The data indicated that PATHWAYS teachers more often than Head Start or community center teachers believed that young handicapped children and "typical" children both benefit from a mainstreaming experience. It is suggested, from these results and from a review of related literature, that such experiences facilitate the development of understanding and acceptance, by the children, regarding

individual differences which characterize all people. If, in fact, this is true, further research is needed to determine if these feelings of acceptance are maintained over time. Longitudinal studies of the attitudes of the same group of children while participating in a mainstreamed child care program, in early elementary school and later elementary school could provide such information.

6. Extensive research needs to be conducted regarding the amount and types of inservice training and/or workshop sessions related to mainstreaming, child development, working with parents and meeting the needs of handicapped children to find out which (if any) have the most impact on the formation of positive teacher attitudes toward mainstreaming and a willingness to accept handicapped children into regular classes. Suggestions regarding what a comprehensive inservice training program should include are provided in the last section of this chapter, Implications for Instructional Programs.

7. The results of this study also provide implications for the development of or restructuring of teacher training programs in colleges and universities. Given the information from this study, it is only possible to make some suggestions as to the changes which could be made in order to facilitate the development of adequate skills, knowledge and positive attitudes toward mainstreaming in college students who wish to teach in child care centers or at the elementary or secondary educational levels. Further research

regarding the structure of teacher training curricula at various levels of education are needed to verify the assumptions and implications enumerated in the Implications for Instructional Programs section of this chapter.

8. The instruments used in this study are limited only to the area of Early Childhood Education. Additionally, the Survey of Terminology: Mainstreaming and Handicapping Conditions is limited in that many of the questions are pertinent only to Michigan. The high validity and reliability ratings of all of the instruments suggest that it would be logical to make changes in the instruments which would increase their generalizability to other situations and states. Recommended changes in the Survey of Terminology: Mainstreaming and Handicapping Conditions questionnaire are as follows: a) revise those questions which are pertinent only to the laws of Michigan so they would be relevant for use in other states; b) include some questions related to the basic growth and development of children at different ages and levels of development; c) expand the scope of the survey such that it would be appropriate for use with elementary and secondary school teachers; and d) include additional questions which relate to the use of specific strategies of interaction with handicapped and non-handicapped children.

Recommended changes in the Background and Experience Information questionnaire include: a) revising the charts asking for information regarding the amount of experience teachers have had interacting with young handicapped

children in mainstreamed and non-mainstreamed settings. These format changes would be made to facilitate the ease of coding the information and clarifying exactly the type of responses which are desired in each section of the charts; b) clarification of what is meant by mildly, moderately and severely handicapped children in the last three questions; and c) inserting an open-ended question asking for the reasons why respondents would not accept a handicapped child into a regular classroom.

The Integration Opinionnaire could be revised as follows: a) the scope of the opinionnaire could be expanded so it could be used to assess the attitudes of teachers and other personnel in elementary or secondary schools; and b) the items which were not considered to be discriminatory could be removed.

9. The limitations under which this study was conducted did not allow for investigation into the types of classroom environments and types of interactions that take place in "successful" and "unsuccessful" mainstreamed and non-mainstreamed classrooms. These factors have been shown to be very important in decisions regarding the placement of and program planning for handicapped and typical children. Further comparisons of these factors in various types of settings and their influence on the success or failure of mainstreaming for the children, staff and parents are recommended.

Implications for Instructional Programs

The findings of this study provide several implications for the development of inservice training programs and university teacher training programs which would have as their primary goals to: 1) encourage the development of positive teacher (student) attitudes toward mainstreaming; and 2) provide teachers (students) with the knowledge and skills necessary to build self-confidence in their abilities to meet the needs of both handicapped and non-handicapped children in a mainstreamed classroom such that they would be ready and willing to voluntarily participate or teach in a mainstreamed environment.

Inservice Training Programs. Given the results of this study, it is suggested that a comprehensive inservice teacher training program should include at least the following components:

1. Voluntary participation in the program by all persons.
2. At least one opportunity for all participants to evaluate the program and their participation in the program.
3. Opportunities for parental input and participation in the program.
4. Specific informational input to the program participants regarding:
 - a. the behavioral characteristics of children with various types of handicapping conditions

- b. techniques or strategies which encourage positive and appropriate interactions with children who have various needs and abilities, whether they are handicapped children or non-handicapped children
- c. adaptations which often need to be made in the classroom and/or educational program when children with particular handicapping conditions are included
- d. Federal (P.L. 94-142) and state mandates regarding the education of handicapped children in a "least restrictive environment" according to their individual needs and abilities
- e. how to mainstream handicapped children using an ecological perspective, e.g. the importance of matching and fitting the placement and program to meet the developmental needs and abilities of the handicapped child; consideration of and cooperation between the teacher, parents and others who are involved in providing services to the child, family and program; the relationship between the teacher's personality and skill level and the success or failure of a mainstreaming experience for the children, teacher, and parents
- f. how to write and implement an Individual Educational Plan (IEP) for a mainstreamed child so that the child's individual needs are met and, if possible, only a few adaptations are needed in

the existing program

g. the names and functions of persons and agencies which are often involved in the assessment, training (education) and provision of services to handicapped children and their families

h. how to plan and design appropriate educational experiences for children at different developmental levels.

5. Opportunities for participants to interact in a mainstreamed classroom. The interactions would be enhanced by modeling and individual feedback provided by the inservice program staff or by a resource person who had had experience planning for and interacting with children who have varying types and severities of handicapping conditions.

6. An overall goal which encourages the participants to recognize and evaluate their own abilities, needs, and professional ethics and conduct.

7. A philosophy which encourages participants to share information with and engage in positive interactions with other staff members and colleagues.

The inclusion of the above components into an inservice training program would:

1. Encourage the use of an ecological approach to mainstreaming;

2. Increase the knowledge of the participants regarding mainstreaming, handicapping conditions, methods of interaction with children and adults, classroom management

and principles of planning and implementing developmentally appropriate programs for young children;

3. Assist participants in the development of the skills needed to implement a "successful" mainstreaming program by providing guided experiences within a classroom setting.

Each of the above components were identified within the findings of this study as important to the development of positive teacher attitudes toward mainstreaming and/or a willingness by teachers to accept a handicapped child into a regular classroom.

University Curricula. Implications for the development or revision of university teacher training programs (curricula) are enumerated below.

1. Courses offered within the teacher training curricula should be taught from an ecological perspective. The courses should focus on such topics as: a) the relationship of the family and the individual with the near environment; b) the total ecology of the child (e.g. family ecosystem, educational system, social system, political system, cultural environment, physical environment, biological environment) and the effects these systems and ecosystems have on the development of the child; and c) the adaptations which must be made within the family, school and society in order to provide the handicapped child an opportunity to lead as normal a life as possible and function as a worthwhile, contributing member of

society.

2. Courses offered within the teacher training program should be taught from a developmental point of view. Such courses would teach students to identify and interact with young handicapped children. The students would also learn to plan and implement appropriate programs to meet the needs of children at various stages of development.

3. Information regarding various aspects of mainstreaming (e.g. laws, terminology, program placement and planning) and the behavioral characteristics of both "normal" and handicapped children should be incorporated within existing child development and teaching methods courses or be developed as separate courses within the curricula.

4. A course on parent-teacher and teacher-staff interaction should be included within the curricula. This course would stress the importance of encouraging and maintaining open communications among all persons involved in interactions with and planning for the children. The course would also encourage the sharing of information about the handicapped child with all people who "need to know". Furthermore, the course would provide the students with knowledge and strategies regarding the involvement of parents and all staff in planning for and meeting the unique needs of a handicapped or non-handicapped child.

5. Information about the reliability, validity and functional purposes of various instruments or methods used to assess a child's development should be included in a

course within the teacher training curricula. This course should also provide the students with opportunities to practice using and interpreting various assessment (formal and informal) tools.

6. Courses which teach interaction, planning and classroom management skills should also include practicum experiences in a classroom thus allowing the students to practice the principles they are taught in lecture sessions.

7. The students should be allowed the opportunity to evaluate all courses and practicum experiences that they take or are involved in. The evaluations should be structured so that they encourage the student to: a) evaluate the overall effectiveness of the course/experience; b) discuss the positive and negative aspects of the whole course and/or specific portions of the course/experience; c) provide recommendations for change which would lead to improvement of the course/experience for others; and d) identify the kinds of skills and knowledge which the student developed during the course/experience. Such evaluations provide the professor/instructor with information such as: a) his/her effectiveness in meeting the goals and objectives of the course; b) where the course could be improved; c) additional ideas regarding information and experiences that could be incorporated into the course at a later date; and d) the relative efficiency of the course/experience in helping to achieve the goals and objectives of the total teacher training program.

The following factors in this study have been proven to, at least partially, account for positive teacher attitudes toward mainstreaming and/or a willingness by teachers to accept a handicapped child into their regular classes:

a) an extensive level of knowledge about mainstreaming and handicapping conditions; b) a high amount of experience interacting with young handicapped children; c) employment in a center which uses both an ecological and developmental approach to mainstreaming; d) offering teachers as much assistance as they need to implement a mainstreaming program; and e) the severity of a child's handicapping condition.

In order to provide regular preprimary teachers with the skills, knowledge, and positive attitudes needed to implement "successful" mainstreaming programs, several steps must be taken within existing preprimary and higher education systems. First, existing Early Childhood Education teacher training curricula offered in universities and colleges must be modified to provide students with skills in a) the identification of handicapping conditions; b) interacting with young handicapped children; and c) planning and implementing programs which will meet the "unique" needs of both handicapped and non-handicapped children. Such curricula should be taught from both ecological and developmental perspectives. Second, inservice training programs must be provided for teachers who are already working in the field which emphasize the same factors as the teacher training curricula. Finally, early childhood educators must

begin to consider the total ecological environment of the child when planning for and placing a handicapped child into a regular classroom. The match/fit of the young handicapped child's needs and abilities with the personality and abilities of a teacher and the classroom environment are vital. Failure to take all aspects of the child's environment into account could deny the handicapped child, the "typical" children, the teacher and the parents of the handicapped child with a successful mainstreaming experience.

Educational models which provide more opportunities for handicapped persons to lead as "normal" a life as possible are needed within our society (Carlson, 1975). The use of an ecological perspective and a developmental approach to mainstreaming is one method through which early childhood educators can expand their personal commitment to meeting the needs of all children — especially to those children who are perceived to be handicapped.

APPENDIX A

Instruments

Social Security # _____

BACKGROUND AND EXPERIENCE INFORMATION

Please check or fill in the response which most accurately describes you and your present experiences. Please complete every question.

1. Age:

- ☐ under 20
☐ 20 - 25
☐ 26 - 30
☐ 31 - 35
☐ 41 - 45
☐ 46 - 50
☐ 51 or older

2. Sex.

☐ Male ☐ Female

3. Racial and Ethnic Background:

- ☐ White
☐ Native American
☐ Black
☐ Hispanic
☐ Oriental
☐ Other (please specify) _____

4. Educational Attainment:

- ☐ Some high school
☐ High school graduate
☐ Junior/community college (2 years)
Associate degree earned? ☐ Yes ☐ No
☐ College/university
Number of years? _____
Degree earned? (Circle one)
B.S. B.A. M.S. M.A. Ph.D. Ed.D. M.D. LL.D.

5. What was your major in college? _____

6. a. Do you have a teaching certificate?

() Yes-----GO TO QUESTION 6b BELOW

() No-----GO TO QUESTION 7 BELOW

6. b. If you have a teaching certificate, what kind is it?

_____ Child Development Associate

_____ Elementary Education with Early Childhood Endorsement

_____ Preschool/Kinderergarten

_____ Elementary Education

_____ Secondary Education

Which disability area(s)?

_____ Other (please specify) _____

7. a. Are you a parent? (check one)

() Yes-----GO TO QUESTION 7.b. BELOW

() No-----GO TO QUESTION 3.a. BELOW

b. If you are a parent, are you a

_____ parent of child(ren) considered handicapped

_____ parent of nonhandicapped child(ren)

_____ parent of child(ren) in preschool

_____ parent of child(ren) not in preschool

3. a. Have you had any experiences (other than teaching) interacting with handicapped children from birth to six years of age?

() Yes-----GO TO QUESTION 8.b. ON THE NEXT PAGE

() No-----GO TO QUESTION 9.a. ON NEXT PAGE

- b. Please complete the following chart. In the first column, "Specific Child", write in the first name of each handicapped child you have interacted with. In the second column, "Type of Handicap", indicate the type of handicapping condition each child had. In the third column, "Amount of Interaction", indicate approximately how much time, in hours and minutes, you spent with each child each week. In the fourth column, "Length of Interaction in Years and/or Months", indicate the total length of time you (have) interacted with each child.

Specific Child (first name only)	Type of Handicap	Amount of Interaction (hrs., min./ week)	Length of Interaction (yrs. &/or mos.)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

9. a. Are you presently teaching in a classroom with at least one handicapped child?

() Yes

() No

- b. How long have you taught in this position?

_____ years _____ months

- c. Have you ever taught in a classroom with at least one handicapped child?

() Yes-----GO TO QUESTION 9.d. ON THE NEXT PAGE

() No-----GO TO QUESTION 9.a. ON THE NEXT PAGE

d. How long did you teach in that classroom?

_____ years _____ months

- e. If you answered "Yes" to either a or c above, please complete the following chart for each handicapped child you have taught. In the first column, "Specific Child", write in the first name of each handicapped child you have interacted with. In the second column, "Type of Handicap", indicate the type of handicapping condition each child has (had). In the third column, "Amount of Interaction", indicate approximately how much time, in hours and minutes, you spent with each child each week. In the fourth column, "Length of Interaction in Years and/or Months", indicate the total length of time you (have) interacted with each child.

Specific Child (first name only)	Type of Handicap	Amount of Interaction (hrs., min./week)	Length of Interaction (yrs. and/or mos.)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

10. Approximately how many in-service training programs and/or workshops have you attended in the past two years related to:

- _____ planning and implementing programs for children 2 to 6 years of age?
- _____ normal child growth and development?
- _____ meeting the needs of handicapped children?
- _____ working with parents of young children?

11. Approximately how many college/university courses have you taken related to:

- _____ planning and implementing programs for children 2 to 6 years of age?
 _____ normal child growth and development?
 _____ the education of and meeting the needs of handicapped children?
 _____ working with parents of young children?

12. Given that you are asked to accept a mildly handicapped (e.g., stuttrer, partially sighted or mildly hearing impaired) child into your regular classroom, how would you feel about this request? Read each of the stated conditions and circle the number that expresses most closely how you would respond:

a. If you are provided with no additional assistance:

5	4	3	2	1
always accept	probably accept	undecided	probably not accept	never accept

b. If you are provided with an additional teacher aide in your classroom:

5	4	3	2	1
always accept	probably accept	undecided	probably not accept	never accept

c. If a resource person who has had extensive training and experience working with young handicapped children would be available to assist you in planning for and integrating the child:

5	4	3	2	1
always accept	probably accept	undecided	probably not accept	never accept

d. If you are provided with the assistance of both an additional teacher aide and a resource person:

5	4	3	2	1
always accept	probably accept	undecided	probably not accept	never accept

13. Given that you are asked to accept a moderately handicapped (e.g., moderate retardation or moderately visually impaired) child into your regular classroom, how would you feel about this request? Read each of the stated conditions and circle the number that expresses most closely how you would respond:

a. If you are provided with no additional assistance:

5	4	3	2	1
always accept	probably accept	undecided	probably not accept	never accept

b. If you are provided with an additional teacher aide in your classroom:

5	4	3	2	1
always accept	probably accept	undecided	probably not accept	never accept

c. If a resource person who has had extensive training and experience working with young handicapped children would be available to assist you in planning for and integrating the child:

5	4	3	2	1
always accept	probably accept	undecided	probably not accept	never accept

d. If you are provided with the assistance of both an additional teacher aide and a resource person:

5	4	3	2	1
always accept	probably accept	undecided	probably not accept	never accept

PLEASE CONTINUE ON NEXT PAGE

14. Given that you are asked to accept a severely handicapped (e.g., deaf, blind or quadriplegic) child into your regular classroom, how would you feel about this request? Read each of the stated conditions and circle the number that expresses most closely how you would respond:

a. If you are provided with no additional assistance:

5	4	3	2	1
always	probably	undecided	probably	never
accept	accept		not	accept
			accept	

b. If you are provided with an additional teacher aide in your classroom:

5	4	3	2	1
always	probably	undecided	probably	never
accept	accept		not	accept
			accept	

c. If a resource person who has had extensive training and experience working with young handicapped children would be available to assist you in planning for and integrating the child:

5	4	3	2	1
always	probably	undecided	probably	never
accept	accept		not	accept
			accept	

d. If you are provided with the assistance of both an additional teacher aide and a resource person:

5	4	3	2	1
always	probably	undecided	probably	never
accept	accept		not	accept
			accept	

"INTEGRATION" OPINIONAIRE

The following statements reflect various opinions and beliefs that individuals hold toward "integration" or the placement of handicapped children in educational programs for typical children. When responding to these statements, note that the terms "integration" and "mainstreaming" are used synonymously. Likewise, the terms "special" and "handicapped" are meant to be interchangeable and represent a variety of handicapping or developmentally delayed conditions. Unless otherwise stated, please respond to the statements in the context of early education (birth through age six). Circle the response that best represents your opinion about the statement.

(Please use the response category "undecided" only if you truly have no opinion about the statement.)

	Strongly Agree	Agree	Disagree	Strongly Disagree	Undecided
1. A primary benefit of mainstreaming in early childhood is the opportunity it offers for typical children to learn how to interact with children of different skills and abilities.	SA	A	D	SD	U
2. A handicapped child in a regular preschool program requires more adult attention than typical children require.	SA	A	D	SD	U
3. Handicapped children disrupt the classroom and serve as undesirable models for typical children.	SA	A	D	SD	U
4. When only one or two handicapped children are present in a regular program, they often become isolated.	SA	A	D	SD	U
5. With supplemental services, the regular preschool program can provide the environment and modeling that stimulates a handicapped child's learning.	SA	A	D	SD	U
6. A disadvantage of mainstreaming is that it may be frustrating for a handicapped child to see other children doing things that (s)he may not be able to do.	SA	A	D	SD	U
7. The attention and individualized help that special children get in segregated programs for the handicapped outweighs the value of the interaction with typical children in integrated settings.	SA	A	D	SD	U
8. The specialized instruction that handicapped children need cannot effectively be provided by regular preschool and nursery school teachers.	SA	A	D	SD	U

	Strongly Agree	Agree	Disagree	Strongly Disagree	Undecided
9. It may be an advantage for parents of handicapped children to be involved with typical children so that they can keep a balanced perspective on what to expect in children's behavior.	SA	A	D	SD	U
10. It is reinforcing and rewarding for parents of handicapped children to feel that their child is accepted and capable of functioning in a regular classroom.	SA	A	D	SD	U
11. An integrated preschool experience for a handicapped child may help stimulate social and language development, but isn't structured enough to provide a total educational experience.	SA	A	D	SD	U
12. "The least restrictive environment" is one in which the handicapped child is treated as much like a typical child as possible.	SA	A	D	SD	U
13. Handicapped children require almost constant one-on-one attention from a teacher in order to achieve their individualized learning objective.	SA	A	D	SD	U
14. Handicapped children can be best served by professionals specially trained to teach the handicapped.	SA	A	D	SD	U
15. Most regular teachers are not able to handle a whole classroom of typical kids as well as the demands of one or two children with special needs.	SA	A	D	SD	U
16. Regular teachers experienced in working with handicapped children are better able to recognize the needs of typical children.	SA	A	D	SD	U
17. Mainstreaming provides an opportunity for typical children to realize that handicapped children have feelings and thoughts just like they do.	SA	A	D	SD	U
18. Since many young, handicapped children need care during the day in addition to special educational experiences, financial and professional assistance must be made available to family and center day care providers.	SA	A	D	SD	U
19. The public schools should provide the resources and professional services so that young handicapped children have a variety of alternative educational environments available for them.	SA	A	D	SD	U
20. Many young handicapped children could benefit from placement in both specialized environments and integrated environments to maximize growth in all areas of development.	SA	A	D	SD	U

		Strongly Agree	Agree	Disagree	Strongly Disagree	Undecided
21.	Only mildly and moderately handicapped children should be placed in programs with typical children.	SA	A	D	SD	U
22.	A good way to enhance people's attitudes toward the handicapped is to have children make contact with the handicapped in natural, matter-of-fact ways while they are still young.	SA	A	D	SD	U
23.	Adult biases, stereotypes and underestimations of special children's abilities are more likely to occur in segregated than integrated settings.	SA	A	D	SD	U
24.	Handicapped children are more likely to grow in independence and confidence in a segregated rather than integrated setting.	SA	A	D	SD	U
25.	Parents who wish to have their special child enrolled in regular preschool programs should receive the same services and financial support to their child's education as parents who enroll their child in programs for special children only.	SA	A	D	SD	U
26.	Most communities are doing a good job of including handicapped children in educational and recreational programs designed for typical children.	SA	A	D	SD	U
27.	Cooperation between community agencies is not necessary in order to effectively meet the needs of special children.	SA	A	D	SD	U
28.	Each handicapped child needs an individually designed program.	SA	A	D	SD	U
29.	Parents of handicapped children would rather have their children placed in special classrooms than risk potential unpleasant experiences with typical children.	SA	A	D	SD	U
30.	Efforts to mainstream handicapped children during the preschool years are at least as important as mainstreaming during the elementary school years.	SA	A	D	SD	U

Experimental Instrument developed at Institute for Family and Child Study,
Michigan State University, Sept.-Oct., 1978.

Social Security # _____

SURVEY OF TERMINOLOGY:
MAINSTREAMING AND HANDICAPPING CONDITIONS

I. Below is a set of terms and descriptive phrases. For each term select the phrase below that best describes it. Enter the appropriate number in the space provided. (There are 6 extra phrases below)

TERMS

_____ mainstreaming

_____ I.E.P.

_____ P.L. 94-142

_____ audiologist

_____ E.P.P.C.

_____ IQ

_____ behavior modification

_____ physical therapist

_____ minimal brain dysfunction

_____ hyperactive

PHRASES

1. written educational plan for each handicapped child detailing how special education and related services will be provided

2. can be determined as young as age two

3. decides educational placement and objectives for a handicapped child

4. associated with positive reinforcement

5. evaluates extent of physical disability under physician's direction

6. placement of handicapped child into the least restrictive environment

7. term occasionally used to describe learning disabilities

3. fits individuals with hearing aids

9. a handicapped child in a regular classroom

10. mandates a free appropriate public education for handicapped children

11. conducts screening and diagnosis of hearing problems

12. child who constantly squirms, turns, and twists, and has about a 10 - 20 second attention span

13. helps build special equipment used for locomotion (e.g. braces, crutches, etc.)

14. used as an indication of intellectual functioning

15. Environment Planning and Protection Clause

16. mandates services to handicapped children from birth to 13 years.

GO TO THE NEXT PAGE PLEASE

- II. In the following pairs of sentences, certain terms and phrases are underlined. In each pair, one sentence reflects the better or most accurate use of the term/phrase. Please circle the word "better" in front of the sentence that uses the underlined term/phrase in a more appropriate or accurate way.

1. Better: A handicapped child if placed in a least restrictive environment will be placed in a regular educational setting.
 Better: A handicapped child if placed in a least restrictive environment will be placed in an educational setting that will meet his/her individual needs and abilities.
2. Better: In Michigan, the Federal and state mandatory special education laws prohibit reimbursement of private child care centers for services provided to handicapped children unless they are placed by the special education agency.
 Better: In Michigan, the Federal and state mandatory special education laws allow for some reimbursement of private child care centers for services provided to handicapped children.
3. Better: Recent research data indicates that a handicapped child in a regular preschool classroom requires much more teacher attention than the average nonhandicapped child.
 Better: Recent research data indicates that a handicapped child in a regular preschool classroom requires only a little more teacher attention than the average nonhandicapped child.
4. Better: "David will be able to button the bottom button of his shirt within six weeks." is an example of a long term objective for an orthopedically handicapped child.
 Better: "By the end of the year, David will be able to put on and button his shirt by himself." is an example of a long term objective for an orthopedically handicapped child.
5. Better: A child who cannot recall events in the right order may have a sequencing problem.
 Better: A child who reverses letters in words may have a sequencing problem.

GO TO THE NEXT PAGE PLEASE

III. In each of the following sentences there are one or more words or terms missing. Write in the word(s) or term(s) that most accurately complete the sentence.

1. The Michigan Mandatory Special Education Act mandates appropriate educational programs and services for handicapped persons from _____ to _____ years of age.
2. An _____ in development is characteristic of children who are mentally impaired.
3. Assessments for emotional impairment must be conducted by a _____.
4. A five-year-old child who pronounces sounds so poorly that his/her _____ cannot be understood by others has a serious articulation problem.
5. _____ refers to the ability to see clearly.
6. Mentally retarded children who need help meeting all of their daily needs are usually classified as _____ mentally retarded.
7. According to 1978 Michigan statistics, there are more _____ impaired children in Michigan than children with any other impairment.
8. Many visually impaired children need _____ training so they can learn how to move about safely and independently.
9. Some of the behaviors which are typical of children with _____ are impulsiveness, perseveration, inability to follow directions and distractability.
10. A 30 decibel hearing loss is less than a _____ decibel hearing loss.

GO TO THE NEXT PAGE PLEASE

- IV. In the following sentences are blanks that can be filled in by technical terms regarding mainstreaming and handicapping conditions. The sentence describes the condition or factor. Write in the letter of the correct term from the list below in the space provided in the sentence.

TERMS

- | | | |
|----------------|-------------------|-------------------------|
| A. congenital | I. categorical | Q. total communication |
| B. assessment | J. cerebral palsy | R. style of learning |
| C. labeling | K. intelligence | S. conductive loss |
| D. thirst | L. due process | T. receptive language |
| E. sign | M. performance | U. emotionally impaired |
| F. communicate | N. parental input | V. muscular dystrophy |
| G. normal | O. psychological | W. pale, moist skin |
| H. autistic | P. adventitious | X. sensori-neural loss |

PHRASES

1. Determining the precise nature and extent of a child's disability so that appropriate prevention and assistance measures can be taken is the purpose of the _____ process.
2. The purpose of _____ is to build an effective review and control mechanism to guard against improper labeling and classification of children.
3. _____ blindness results from such things as disease, injury, poisoning, and genetic or hereditary conditions which appear after birth.
4. Learning to _____ is the central problem a hearing impaired child faces.
5. A problem with the inner ear or with the nerves that carry sound to the brain is referred to as a _____.
6. _____ refers to the use of manual and oral communications at the same time.
7. Dangerously aggressive, withdrawn, hyperactive, psychotic or anxious are terms used to describe the behavior of some _____ children.
8. A _____ diagnosis of a child provides a developmental profile of the child's abilities.
9. _____ is the most important concept in the diagnosis of a mentally retarded child.
10. The name given to conditions in which injury to the brain affects the control of movements is _____.
11. _____ is characteristic of a diabetic child who is having an insulin reaction.

APPENDIX B

Support Letters to Subjects

MICHIGAN STATE UNIVERSITY

College of Human Ecology
Department of Family and Child Sciences

East Lansing · Michigan · 48824

Dear Teacher:

I am a doctoral candidate conducting a research project related to teacher's knowledge and attitudes about mainstreaming young handicapped children into day care and preschool programs. The focus of this study is to determine if early childhood education teachers agree or disagree with the idea of encouraging interactions between preschool aged handicapped and nonhandicapped children in regular preprimary classrooms. This research project is being partially supported by the PATHWAYS Project: A Human Support System Model for Integrated Handicapped Children and Their Families, based at the Institute for Family and Child Study on the Michigan State University campus under the direction of Dr. Nancy A. Carlson.

If you choose to participate in this study, please complete the three questionnaires which are enclosed. The first questionnaire - Background and Experience Information - consists of questions about you and your relationships with handicapped persons. The second questionnaire - the Integration Opinionnaire - will be used to determine teacher's opinions about the advantages and disadvantages of integration for both handicapped and typical children; the regular preschool teacher's ability to meet the needs of handicapped children; the provision of special services and resources to handicapped children and their parents; and what communities are doing about mainstreaming. The final questionnaire - Survey of Terminology: Mainstreaming and Handicapping Conditions - relates to terminology typically used in the mainstreaming process. I am interested in knowing whether such terminology is understood by regular early childhood teachers. These questionnaires should each take no more than 10 to 20 minutes of your time.

You will notice that an informed consent form is enclosed with this letter. Please read and sign the consent form if you agree to participate in the study. All data collected in this study will be kept confidential. You do have the right to withdraw your participation in the study at any time.

Thank you for your assistance in this research project. If you have any questions about the study please call me at one of the following telephone numbers: (517) 353-3897 or (517) 353-5827. Dr. Nancy Carlson, of PATHWAYS, may be reached at (517) 353-6617. If you have agreed to participate in this study, please complete the enclosed questionnaires and informed consent form and return them in the self-addressed envelope provided. A summary of the results of this study will be available to you, upon request, during the Summer of 1979.

Sincerely,

Gayle Clapp
Ph.D. Candidate

Dr. Nancy A. Carlson
Director of PATHWAYS
Institute for Family and Child Study

INFORMED CONSENT FORM

I, the undersigned, willingly consent to participate in a study about teacher's knowledge and attitudes about mainstreaming handicapped children into early childhood education programs usually considered to be for non-handicapped children. I do so with the understanding that my responses will contribute to the goals of the research project being conducted by Gayle Clapp and partially supported by the PATHWAYS Project: A Human Support System Model for Integrated Handicapped Children and Their Families. The purpose of the project has been explained in an enclosed letter. Thus, I have knowledge of the aspects of this study.

I agree to complete the questionnaires as accurately and completely as I am able. I further understand that my name will in no way be linked to the answers I have given, and I reserve the right to withdraw from the study at any time. I desire to participate in this research and consent and agree.

PLEASE SIGN YOUR FIRST AND LAST NAME

Respondent's signature

Date

I, the undersigned, guarantee complete anonymity to the person whose signature is above. The person's name will in no way be linked to the responses given on the questionnaires. I will be happy to answer any questions the person may have about completing the questionnaire. Please call me at (517) 353-3897 or (517) 353-5827 or call Dr. Nancy Carlson, of PATHWAYS, at (517) 353-6617.

Gayle Clapp, Ph.D. Candidate
Department of Family and Child Sciences

Date

Nancy A. Carlson, Ph.D.
Director of PATHWAYS
Institute for Family and Child Study

Date

MICHIGAN STATE UNIVERSITY

College of Human Ecology
Department of Family and Child Sciences

East Lansing • Michigan • 48824

Dear

I am writing in reference to our telephone conversation on .
As you will remember I am conducting my doctoral dissertation on nursery school
and day care center teachers' knowledge and attitudes toward mainstreaming handi-
capped children into regular preprimary centers. In our phone conversation you
mentioned that one of your teachers who has had little or no experience working
with handicapped children might be willing to assist me with my dissertation.
Please find enclosed a letter explaining my study, a consent form, three question-
naires and a postage paid return envelope. These are the items the teacher will
need to participate in the study.

Thank you very much for your assistance and cooperation.

Sincerely,

Gayle Clapp
Ph.D. Candidate

APPENDIX C

Codebook

CODEBOOK
BACKGROUND AND EXPERIENCE INFORMATION

Column Number	Number of Columns	Variable Name	Code Range	Item
1-5	5	ID	00000-99999	Subject SSN (last 5 digits)
6	1	CITY	1-5	<u>City</u> 1=Lansing/E. Lansing 2=Flint 3=Kalamazoo 4=Grand Rapids 5=Jackson
7	1	CTR	1-3	<u>Type of Center</u> 1=PATHWAYS 2=Head Start 3=Community
8	1	--	--	BLANK
9	1	TCHCS	0-9	<u>CHILD 8 - Type of Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired 7=Mentally Impaired (Down's Syndrome) 8=Health/Otherwise Impaired (Incl. Dev. Delay, CP, LD) 9=Multiple Handicaps

Column Number	Number of Columns	Variable Name	Code Range	Item
10-13	4	MITCH8	0000-9999	<u>Number of Minutes</u> <u>Interaction Per Week</u> <u>in Class Child 8</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/ 30 hrs; etc.
14-15	2	MOTCH8	00-99	<u>Length Interaction</u> <u>with Child in Class</u> <u>by Month Child 8</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs
16	1	TCHC9	0-9	<u>CHILD 9 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired 7=Mentally Impaired (Down's Syndrome) 8=Health/Otherwise Impaired (Incl. Dev. Delay, CP, LD) 9=Multiple Handicaps

Column Number	Number of Columns	Variable Name	Code Range	Item
17-20	4	MITCH9	0000-9999	<u>Number of Minutes</u> <u>Interaction Per Week</u> <u>in Class with Child 9</u> 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/ 30 hrs; etc.
21-22	2	MOTCH9	00-99	<u>Length Interaction</u> <u>in Class by Months</u> <u>Child 9</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs
23	1	TCHC10	0-9	<u>CHILD 10 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Im- paired 6=Emotionally Impaired 7=Mentally Impaired (& Down's Syndrome) 8=Health/Otherwise Impaired (Incl. Dev. Delay, CP, LD) 9=Multiple Handicaps

Column Number	Number of Columns	Variable Name	Code Range	Item
24-27	4	MITCH10	0000-9999	<u>Number of Minutes</u> <u>Interaction Per Week</u> <u>in Class Child 10</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/½ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/ 30 hrs; etc.
28-29	2	MOTCH10	00-99	<u>Length Interaction in</u> <u>Class by Months</u> <u>Child 10</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs
30	1	--	--	BLANK Number of Inservice/ Workshops Taken in Last 2 Years Related to:
31	1	ISWPL	0-9	Planning & Implement- ing Programs for 2-6 Year Olds 0=None(0); No/Ans.; Blank 1=1 2=2 3=3 9=9 or more

Column Number	Number of Columns	Variable Name	Code Range	Item
32	1	ISWGD	0-9	Normal Child Growth & Development 0=None(0); No Ans/ Blank 1=1 2=2 3=3 9=9 or more
33	1	ISWNHC	0-9	Meeting Needs of Handicapped Child 0=None(0); No Ans/ Blank 1=1 2=2 3=3 9=9 or more
34	1	ISWP	0-9	Working with Parents of Young Children 0=0(None); No Ans/ Blank 1=1 2=2 3=3 9=9 or more
35	1	CPL	0-9	<u>Number of College/ Univ. Courses Taken Related to:</u> Planning & Imple- menting Programs for Young Children 0=0(none);No Ans/ Blank 1=1 2=2 3=3 9=9 or more

Column Number	Number of Columns	Variable Name	Code Range	Item
36	1	CGD	0-9	Normal Child Growth & Development 0=0(none); No Ans/ Blank 1=1 2=2 3=3 9=9 or more
37	1	CNHC	0-9	Meeting the Needs of Handicapped Child 0=0(none); No Ans/ Blank 1=1 2=2 3=3 9=9 or more
38	1	CP	0-9	Working with Parents of Young Children 0=0(none); No Ans/ Blank 1=1 2=2 9=9 or more <u>Acceptance of (Mildly) Handicapped Child</u>
39	1	AMINA	0-5	With <u>No</u> Additional Assistance 0=No Ans/Blank 1=Never accept 2=Probably not accept 3=Undecided 4=Probably accept 5=Always accept

Column Number	Number of Columns	Variable Name	Code Range	Item
40	1	AMITA	0-5	With An Additional Teacher Aide 0=No Ans/Blank 1=Never Accept 2=Probably Not Accept 3=Undecided 4=Probably Accept 5=Always Accept
41	1	AMIRP	0-5	With Assistance of Resource Person 0=No Ans/Blank 1=Never Accept 2=Probably not accept 3=Undecided 4=Probably accept 5=Always accept
42	1	AMITAR	0-5	With Additional Teacher Aide and Resource Person 0=No Ans/Blank 1=Never accept 2=Probably not accept 3=Undecided 4=Probably accept 5=Always accept
				<u>Acceptance of (Moderately) Handicapped</u>
43	1	AMONA	0-5	<u>Child with No Additional Assistance</u> 0=No Ans/Blank 1=Never accept

Column Number	Number of Columns	Variable Name	Code Range	Item
				2=Probably not accept
				3=Undecided
				4=Probably accept
				5=Always accept
44	1	AMOTA	0-5	With Additional Teacher Aide
				0=No Ans/Blank
				1=Never accept
				2=Probably not accept
				3=Undecided
				4=Probably accept
				5=Always accept
45	1	AMORP	0-5	With Assistance of a Resource Person
				0=No Ans/Blank
				1=Never accept
				2=Probably not accept
				3=Undecided
				4=Probably accept
				5=Always accept
46	1	AMOTAR	0-5	With Teacher Aide and Resource Person
				0=No Ans/Blank
				1=Never accept
				2=Probably not accept
				3=Undecided
				4=Probably accept
				5=Always accept

Column Number	Number of Columns	Variable Name	Code Range	Item
				<u>ACCEPTANCE OF (SEVERELY) HANDICAPPED CHILD</u>
47	1	ASNA	0-5	With No Additional Assistance 0=No Ans/Blank 1=Never accept 2=Probably not accept 3=Undecided 4=Probably accept 5=Always accept
48	1	ASTA	0-5	With Additional Teacher Aide 0=No Ans/Blank 1=Never accept 2=Probably not accept 3=Undecided 4=Probably accept 5=Always accept
49	1	ASRP	0-5	With Assistance of a Resource Person 0=No Ans/Blank 1=Never accept 2=Probably not accept 3=Undecided 4=Probably accept 5=Always accept

Column Number	Number of Columns	Variable Name	Code Range	Item
50	1	ASTAR	0-5	With Teacher Aide and Resource Person 0=No Ans/Blank 1=Never accept 2=Probably not accept 3=Undecided 4=Probably accept 5=Always accept
51	1	--	--	BLANK FOR INTERVIEWS ONLY
52	1	IFNAY1	0-9	Give Reasons Why You Would Not Accept a Handicapped Child 0=No Ans/Blank 1=Inadequate staff 2=Inadequate know- ledge of how to work with handi- capped children 3=No time to deal with handicapped child and present class too 4=If other children may suffer with handicapped child in class 5=If handicapped child was not ready to accept routine and being with "normal" children 6=Would have to make a different set of lesson plans for the handicapped child

Column Number	Number of Columns	Variable Name	Code Range	Item
				7-If handicapped child was extremely disruptive
				8-If handicapped child would be hurt by being in the class
				9-Inadequate equipment in the class to meet a handicapped child's needs
53	1	IFNAY2	0-9	Give Reasons Why You Would Not Accept a Handicapped Child
				0-No Ans/Blank
				1-Inadequate staff
				2-Inadequate knowledge of how to work with handicapped children
				3-No time to deal with handicapped child and present class too
				4-If other children may suffer with handicapped child in class
				5-If handicapped child was not ready to accept routine and being with "normal" children
				6-Would have to make a different set of lesson plans for the handicapped child
				7-If handicapped child was extremely disruptive

Column Number	Number of Columns	Variable Name	Code Range	Item
				8=If handicapped child would be hurt by being in the class
				9=Inadequate equipment in the class to meet a handicapped child's needs
54	1	IFNAY3	0-9	Give Reasons Why You Would Not Accept a Handicapped Child
				0=No Ans/Blank
				1=Inadequate staff
				2=Inadequate knowledge of how to work with handicapped children
				3=No time to deal with handicapped child and present class too
				4=If other children may suffer with handicapped child in class
				5=If handicapped child was not ready to accept routine and being with "normal" children
				6=Would have to make a different set of lesson plans for the handicapped child
				7=If handicapped child was extremely disruptive

Column Number	Number of Columns	Variable Name	Code Range	Item
				8-If handicapped child would be hurt by being in the class
				9-Inadequate equipment in the class to meet a handicapped child's needs
55	1	IFNAY4	0-9	Give Reasons Why You Would Not Accept a Handicapped Child
				0-No Ans/Blank
				1-Inadequate staff
				2-Inadequate knowledge of how to work with handicapped children
				3-No time to deal with handicapped child and present class too
				4-If other children may suffer with handicapped child in class
				5-If handicapped child was not ready to accept routine and being with "normal" children
				6-Would have to make a different set of lesson plans for the handicapped child
				7-If handicapped child was extremely disruptive

Column Number	Number of Columns	Variable Name	Code Range	Item
				8-If handicapped child would be hurt by being in the class
				9-Inadequate equip- ment in the class to meet a handi- capped child's needs

CODEBOOK

BACKGROUND AND EXPERIENCE INFORMATION

Column Number	Number of Columns	Variable Name	Code Range	Item
1-5	5	ID	00000-99999	Subj. SSN (last 5 digits)
6	1	City	1-5	<u>City</u> 1=Lansing/E.Lansing 2=Flint 3=Kalamazoo 4=Grand Rapids 5=Jackson
7	1	CTR	1-3	<u>Type of Center</u> 1=PATHWAYS 2=Head Start 3=Community
8	1	--	--	Blank
9	1	Age	0-8	<u>Age</u> 0=No Answer/Blank 1=Under 20 2=20-25 3=26-30 4=31-35 5=36-40 6=41-45 7=46-50 8=51 or older
10	1	Sex	0-2	<u>Sex</u> 0=No Answer/Blank 1=Male 2=Female

Column Number	Number of Columns	Variable Name	Code Range	Item
11	1	Race	0-6	<u>Racial & Ethnic Background</u> 0=No Answer/Blank 1=White 2=Native American 3=Black 4=Hispanic 5=Oriental 6=Other
12	1	Education	0-4	<u>Educational Attainment</u> 0=No Answer/Blank 1=Some High School 2=High School Grad 3=Jr/Commun.College (2 years) 4=College/University
13-14	2	Years in College	0-10	<u>Number Years in College</u> 00=No Answer/Blank/ No years in College 01=1 year 02=2 years 03=3 years, etc. 10=10 years
15	1	DEG	0-9	<u>Degree Earned?</u> 0=None/No Answer/ Blank 1=Associate Degree 2=BS 3=BA 4=MS

Column Number	Number of Columns	Variable Name	Code Range	Item
				5=MA
				6=Ph.D.
				7=Ed.D.
				8=M.D.
				9=LL.D.
16-17	2	COMAJ	00-12	<u>College Major</u>
				00=No Answer/Blank
				01=Child. Dev./E. Ch.Ed./Ch.Serv.
				02=Elementary Ed.
				03=El.Ed & Ch.Dev.
				04=Secondary Educ.
				05=Home Economics
				06=Sociology
				07=Psychology
				08=English
				09=Foreign Language
				10=Social Work
				11=History
				12=Other
18	1	TCER	0-2	<u>Do You Have A Teaching Certificate?</u>
				0=No Answer/Blank
				1=Yes
				2=No
19	1	KDCER	0-6	<u>Kind of Teaching Certificate</u>
				0=No Answer/Blank
				1=Child Dev. Associate
				2=Elem.Ed.w/Early Ch. Endorsement

Column Number	Number of Columns	Variable Name	Code Range	Item
				3=Preschool/Kinder- garten
				4=Elementary Educa- tion
				5=Secondary Educa- tion
				6=Other
20	1	SECR	0-7	<u>Disability Area of Special Educ. Certificate</u>
				0=No Answer/Blank
				1=Visually Impaired
				2=Deaf-Blind
				3=Hearing Impaired
				4=Speech & language Impaired
				5=Orthopedically Impaired
				6=Emotionally Impaired
				7=Mentally Impaired
21	1	PAR	0-2	<u>Are You A Parent?</u>
				0=No Answer/Blank
				1=Yes
				2=No
22	1	PARCH 1	0-4	<u>Parent of What Kind of Child?</u>
				0=No Answer/Blank
				1=Handicapped Child
				2=Nonhandicapped Child
				3=Child in Preschool
				4=Child not in Pre- school

Column Number	Number of Columns	Variable Name	Code Range	Item
23	1	PARCH 2	0-4	<u>Parent of What Kind of Child?</u> 0=No Answer/Blank 1=Handicapped Child 2=Nonhandicapped Child 3=Child in Preschool 4=Child not in Pre-school
24	1	EXOT	0-2	<u>Have You Had Experiences Interacting With Handicapped Children Other Than Teaching?</u> 0=No Answer/Blank 1=Yes 2=No <u>EXPERIENCES OTHER THAN TEACHING CHART</u>
25	1	OETHC 1	0-9	<u>CHILD 1 - Type of Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired (Downs Syndrome) 7=Mentally Impaired 8=Health or otherwise (Dev. Delayed, LD, etc.) 9=Multiple Handicaps

Column Number	Number of Columns	Variable Name	Code Range	Item
26-29	4	OMICH 1	0000-9999	<p>Number of <u>MINUTES</u> Interaction Per Week Child 1 Other Than Teaching. (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/$\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/ 2 hrs 1800=1800 minutes/ 30 hours, etc.</p>
30-31	2	OLIMO 1	00-99	<p>Length of Interaction Other Than Teaching in <u>MONTHS</u> Child 1 (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.</p>
32	1	OETHC 2	0-0	<p><u>CHILD 2</u> - Type of Handicap 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired</p>

Column Number	Number of Columns	Variable Name	Code Range	Item
				7=Mentally Impaired (and Downs Syndrome)
				8=Health or Otherwise Impaired (Dev. Delay/LD, CP)
				9=Multiple Handi- capped
33-36	4	OMIHC2	0000-9999	# <u>Minutes</u> Interaction <u>Per Week</u> Other Than <u>Teaching</u> <u>Child 2</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/½ hr 0060=60 minutes/1 hr 0120=120 minutes/ 2 hrs 1800=1800 minutes/ 30 hrs; etc.
37-38	2	OLIMO2	00-99	Length of Interaction by <u>MONTHS</u> Other Than <u>Teaching</u> <u>Child 2</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 12=12 months/1 yr 24=24 months/2 yrs; etc.
39	1	OETHC3	0-9	<u>CHILD 3</u> - Type of <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired

Column Number	Number of Columns	Variable Name	Code Range	Item
				5=Orthopedically Impaired
				6=Emotionally Impaired
				7=Mentally Impaired (and Downs Syndrome)
				8=Health or Otherwise Impaired (Dev. Delay/LD, CP)
				9=Multiple Handicapped
40-43	4	OMIHC3	0000-9999	# <u>Minutes</u> Interaction Other Than Teaching <u>Per Week</u> <u>Child 3</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/ 30 hrs, etc.
44-45	2	OLIMO3	00-99	<u>Length</u> Interaction by <u>Months</u> Other Than Teaching <u>Child 3</u> (Yrs x 12) 00=No Answer/Blank 01=1 Month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.

Column Number	Number of Columns	Variable Name	Code Range	Item
46	1	OETHC4	0-9	<p>Child 4 - Type of Handicap</p> <p>0=No Answer/Blank</p> <p>1=Visually Impaired</p> <p>2=Deaf-Blind</p> <p>3=Hearing Impaired</p> <p>4=Speech &/or Lang. Impaired</p> <p>5=Orthopedically Impaired</p> <p>6=Emotionally Impaired and Downs Syndrome</p> <p>7=Mentally Impaired</p> <p>8=Health or Otherwise (Dev. Delayed, LD, etc.)</p> <p>9=Multiple Handicapped</p>
47-50	4	OMIHC4	0000-9999	<p># Minutes Interaction Per Week Other Than Teaching Child 4</p> <p>(Hrs x 60)</p> <p>0000=No Answer/Blank</p> <p>0001=1 minute</p> <p>0030=30 minutes/½ hr</p> <p>0060=60 minutes/1 hr</p> <p>0120=120 minutes/2 hrs</p> <p>1800=1800 minutes/30 hrs, etc.</p>
51-52	2	OLIMO4	00-99	<p>Length Interaction by Months Other Than Teaching Child 4</p> <p>(Yrs x 12)</p> <p>00=No Answer/Blank</p> <p>01=1 month</p> <p>02=2 months</p> <p>12=12 months/1 yr</p> <p>24=24 months/2 yrs; etc.</p>

Column Number	Number of Columns	Variable Name	Code Range	Item
53	1	OETHC5	0-9	<u>Child 5 - Type of Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired 7=Mentally Impaired (and Down's Syndrome) 8=Health or Otherwise Impaired (Dev. Delay/LD, CP) 9=Multiple Handicapped
54-57	4	OMIHC5	0000-9999	<u># Minutes Interaction Per Week Other Than Teaching Child 5</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/½ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/30 hrs, etc.
58-59	2	OLIMOS	00-99	<u>Length Interaction by Months Other Than Teaching Child 5</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months

Column Number	Number of Columns	Variable Name	Code Range	Item
				12=12 months/1 yr 24=24 months/2 yrs; etc.
60	1	OETHC6	0-9	Child 6 - Type of Handicap 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Im- paired 6=Emotionally Impaired 7=Mentally Impaired (& Down's Syndrome) 8=Health or Otherwise Impaired (Dev. Delay/LD, CP) 9=Multiple Handi- capped
61-64	4	OMIHC6	0000-9999	# <u>Minutes</u> Interaction Per Week Other Than Teaching Child 6 (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/ 2 hrs 1800=1800 minutes/ 30 hrs; etc.

Column Number	Number of Columns	Variable Name	Code Range	Item
65-66	2	OLIM06	00-99	<u>Length Interaction</u> <u>by Months Other Than</u> <u>Teaching Child 6</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.
67	1	OETHC7	0-9	<u>Child 7 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired 7=Mentally Impaired (& Down's Syndrome) 8=Health or Otherwise Impaired (Dev. Delay/LD, CP) 9=Multiple Handicapped
68-71	4	OMIHC7	0000-9999	<u># Minutes Interaction</u> <u>Per Week Other Than</u> <u>Teaching Child 7</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/½ hr

Column Number	Number of Columns	Variable Name	Code Range	Item
				0060=60 minutes/1 hr 0120=120 minutes/ 2 hrs 1800=1800 minutes/ 30 hrs, etc.
72-73	2	OLIM07	00-99	<u>Length Interaction by</u> <u>Months Other Than</u> <u>Teaching Child 7</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.
74	1	OETHC8	0-9	<u>Child 8 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Im- paired 6=Emotionally Impaired 7=Mentally Impaired (& Down's Syndrome) 8=Health or Otherwise Impaired (Dev. Delay/LD, CP) 9=Multiple Handicapped

Column Number	Number of Columns	Variable Name	Code Range	Item
75-78	4	OMIHC8	0000-9999	<u># Minutes Interaction</u> <u>Per Week Other Than</u> <u>Teaching Child 8</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/ 30 hrs, etc.
79-80	2	OLIMO8	00-99	<u>Length Interaction</u> <u>by Months Other Than</u> <u>Teaching Child 8</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.

CODEBOOK
INTEGRATION OPINIONAIRE AND SCORES ON
SURVEY OF TERMINOLOGY

Column Number	Number of Columns	Variable Name	Code Range	Item
1-5	5	ID	00000-99999	Subj. SSN (last 5 digits)
6	1	CITY	1-5	City 1=Lansing/E. Lansing 2=Flint 3=Kalamazoo 4=Grand Rapids 5=Jackson
7	1	CTR	1-3	1=PATHWAYS 2=Head Start 3=Community
8	1	--	--	BLANK
9-38	30	IOQ1 thru IOQ30	0-5	Opinionaire Responses 0=No Answer/Blank 1=SA=Strongly agree 2=A=Agree 3=D=Disagree 4=SD=Strongly dis- agree 5=U=Undecided
39-44	6	--	--	BLANK
45-46	2	STSC	00-36	Total Score Correct On Survey of Termin- ology 00=No Test (missing data); Blank 01=Score of 1 point correct

Column Number	Number of Columns	Variable Name	Code Range	Item
45-46	2	STSC	00-36	15=Score of 15 points correct 36=Score of 36 points correct

CODEBOOK

BACKGROUND AND EXPERIENCE INFORMATION

Column Number	Number of Columns	Variable Name	Code Range	Item
1-5	5	ID	00000-99999	Subj. SSN (last 5 digits)
6	1	CITY	1-5	City 1=Lansing/E. Lansing 2=Flint 3=Kalamazoo 4=Grand Rapids 5=Jackson
7	1	CTR	1-3	Type of Center 1=PATHWAYS 2=Head Start 3=Community
8	1	--	--	Blank
9	1	OETHC9	0-9	Child 9 - Type of Handicap 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired 7=Mentally Impaired (& Down's Syndrome) 8=Health/Otherwise (Dev. Delay, LD) 9=Multiple Handi- capped

Column Number	Number of Columns	Variable Name	Code Range	Item
10-13	4	OMIHC9	0000-9999	<u># Minutes Interaction</u> <u>Per Week Other Than</u> <u>Teaching Child 9</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/ 2 hrs 1800=1800 minutes/ 30 hrs; etc.
14-15	2	OLIMO9	00-99	<u>Length Interaction by</u> <u>Months Other Than</u> <u>Teaching Child 9</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.
16	1	OETHCID	0-9	<u>Child 10 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired

Column Number	Number of Columns	Variable Name	Code Range	Item
				7=Mentally Impaired (& Down's Syndrome)
				8=Health or Otherwise Impaired (Dev. Delay/LD, CP)
				9=Multiple Handicapped
17-20	4	OMIHC10	0000-9999	# <u>Minutes</u> Interaction <u>Per Week</u> Other Than <u>Teaching Child 10</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/½ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/ 30 hrs; etc.
21-22	2	OLIMO 10	00-99	<u>Length</u> Interaction by <u>Months</u> Other Than <u>Teaching Child 10</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.
23	1	--	--	BLANK
24	1	PTCHC	0-2	Presently Teaching in Class with at Least One Handicapped Child? 0=No Answer/Blank 1=Yes 2=No

Column Number	Number of Columns	Variable Name	Code Range	Item
25-26	2	MOTPP	00-99	Length of Time Have Taught in Present Position <u>by Months</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 12=12 months/1 yr 24=24 months/2 yrs; etc. to 96=96 months/8 yrs <u>or more</u>
27	1	EVTHC	0-2	Ever Taught in a Class with at Least One Handicapped Child? 0=No Answer/Blank 1=Yes 2=No
28-29	2	MOTOC	00-99	Amount of Time Taught in Other Classrooms with Handicapped Child(ren) <u>by Months?</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 12=12 months/1 yr 24=24 months/2 yrs 96=96 months/8 yrs <u>or more</u>
30	1	--	--	BLANK

Column Number	Number of Columns	Variable Name	Code Range	Item
				<u>EXPERIENCE TEACHING HANDICAPPED CHILD(REN) CHART</u>
31	1	TCHC1	0-9	CHILD 1 - Type of Handicap 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Im- paired 7=Mentally Impaired (& Down's Syndrome) 8=Health/Otherwise Impaired (& Dev. Delay; LD;CP etc.) 9=Multiple Handicaps
32-35	4	MITCH1	0000-9999	<u>Number Minutes Inter- acting with Handi- capped Child Per Week in Classroom Child 1</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/½ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/ 30 hrs; etc.

Column Number	Number of Columns	Variable Name	Code Range	Item
36-37	2	MOTCH1	00-99	<u>Length of Interaction</u> <u>with Handicapped</u> <u>Child in Classroom by</u> <u>Months Child 1</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.
38	1	TCHC2	0-9	<u>Child 2 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Im- paired 6=Emotionally Im- paired 7=Mentally Impaired (& Down's Syndrome) 8=Health or Otherwise Impaired (Dev. Delay/LD, CP) 9=Multiple Handi- capped
39-42	4	MITCH2	0000-9999	<u># Minutes Interacting</u> <u>Per Week in Class</u> <u>Child 2</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute

Column Number	Number of Columns	Variable Name	Code Range	Item
				0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/ 30 hrs, etc.
43-44	2	MOTCH2	00-99	<u>Length Interaction in</u> <u>Class by Months</u> <u>Child 2</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs, etc.
45	1	TCHC3	0-9	<u>Child 3 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Im- paired 7=Mentally Impaired (& Down's Syndrome) 8=Health or Otherwise Impaired (Dev. Delay/LD, CP) 9=Multiple Handi- capped

Column Number	Number of Columns	Variable Name	Code Range	Item
46-49	4	MITCH3	0000-9999	<u>Number of Minutes</u> <u>Interacting Per Week</u> <u>in Class Child 3</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/ 2 hrs 1800=1800 minutes/ 30 hrs, etc.
50-51	2	MOTCH3	00-99	<u>Length Interaction</u> <u>in Class by Months</u> <u>Child 3</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs; etc.
52	1	--	--	BLANK
53	1	TCHC4	0-9	<u>CHILD 4 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired

Column Number	Number of Columns	Variable Name	Code Range	Item
				6=Emotionally Impaired
				7=Mentally Impaired (& Down's Syndrome)
				8=Health or Other- wise Impaired (Dev. Delay/LD,CP)
				9=Multiple Handicapped
54-57	4	MITCH4	0000-9999	<u>Number of Minutes</u> <u>Interacting Per Week</u> <u>in Class Child 4</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/¼ hr 0060=60 minutes/1 hr 0120=120 minutes/ 2 hrs 1800=1800 minutes/ 30 hrs, etc.
58-59	2	MOTCH4	00-99	<u>Length Interaction</u> <u>in Class by Months</u> <u>Child 4</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs, etc.
60	1	TCHC5	0-9	<u>CHILD 5 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired

Column Number	Number of Columns	Variable Name	Code Range	Item
				4=Speech &/or Lang. Impaired
				5=Orthopedically Im- paired
				6=Emotionally Im- paired
				7=Mentally Impaired (& Down's Syndrome)
				8=Health or Other- wise Impaired (Dev. Delay/LD,CP)
				9=Multiple Handi- capped
61-64	4	MITCH5	0000-9999	<u>Number of Minutes</u> <u>Interacting Per Week</u> <u>in Class Child 5</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/ 2 hrs 1800=1800 minutes/ 30 hrs, etc.
65-66	2	MOTCH5	00-99	<u>Length Interaction in</u> <u>Class by Months Child 5</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs, etc.

Column Number	Number of Columns	Variable Name	Code Range	Item
67	1	TCHC6	0-9	<u>CHILD 6 - Type of Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Impaired 6=Emotionally Impaired 7=Mentally Impaired (& Down's Syndrome) 8=Health or Otherwise Impaired (Dev. Delay/LD, CP) 9=Multiple Handicapped
68-71	4	MITCH6	0000-9999	<u>Number of Minutes Interacting Per Week in Class Child 6</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/ $\frac{1}{2}$ hr 0060=60 minutes/1 hr 0120=120 minutes/2 hrs 1800=1800 minutes/30 hrs, etc.

Column Number	Number of Columns	Variable Name	Code Range	Item
72-73	2	MOTCH6	00-99	<u>Length Interaction in</u> <u>Class by Months</u> <u>Child 6</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs, etc.
74	1	TCHC7	0-9	<u>CHILD 7 - Type of</u> <u>Handicap</u> 0=No Answer/Blank 1=Visually Impaired 2=Deaf-Blind 3=Hearing Impaired 4=Speech &/or Lang. Impaired 5=Orthopedically Im- paired 6=Emotionally Im- paired 7=Mentally Impaired (& Down's Syndrome) 8=Health or Other- wise Impaired (Dev. Delay/LD,CP) 9=Multiple Handi- capped
75-78	4	MITCH7	0000-9999	<u>Number of Minutes</u> <u>Interacting Per Week</u> <u>in Class Child 7</u> (Hrs x 60) 0000=No Answer/Blank 0001=1 minute 0030=30 minutes/½ hr

Column Number	Number of Columns	Variable Name	Code Range	Item
				0060=60 minutes/1 hr
				0120=120 minutes/ 2 hrs
				1800=1800 minutes/ 30 hrs, etc.
79-80	2	MOTCH7	00-99	<u>Length Interaction in</u> <u>Class by Months</u> <u>Child 7</u> (Yrs x 12) 00=No Answer/Blank 01=1 month 02=2 months 12=12 months/1 yr 24=24 months/2 yrs, etc.

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