



3 1293 00784 3174

235



This is to certify that the

dissertation entitled

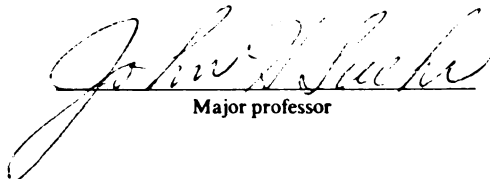
TEACHERS' PERCEPTIONS OF THE EFFECTIVENESS OF
INCLUSIVE EDUCATION TRAINING
IN THE MARQUETTE-ALGER INTERMEDIATE SCHOOL DISTRICT

presented by

Anne Marie Pecotte

has been accepted towards fulfillment
of the requirements for

Ph D degree in Educational Administration



Major professor

Date October 8, 1991

PLACE IN RETURN BOX to remove this checkout from your record.
TO AVOID FINES return on or before date due.

DATE DUE	DATE DUE	DATE DUE
JAN 1 1995	_____	_____
SEP 13 2001	_____	_____
JAN 13 2002	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

MSU is An Affirmative Action/Equal Opportunity Institution

c:\crl\data\due.pm3-p.1

TEACHERS' PERCEPTIONS OF THE EFFECTIVENESS OF
INCLUSIVE EDUCATION TRAINING
IN THE MARQUETTE-ALGER INTERMEDIATE SCHOOL DISTRICT

By

Anne Marie Pecotte

A DISSERTATION

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

DOCTOR OF PHILOSOPHY

Department of Educational Administration

1991

ABSTRACT

TEACHERS' PERCEPTIONS OF THE EFFECTIVENESS OF INCLUSIVE EDUCATION TRAINING IN THE MARQUETTE-ALGER INTERMEDIATE SCHOOL DISTRICT

By

Anne Marie Pecotte

The purpose of this study was to examine the extent to which inclusive education training helped teachers meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students placed in general education classrooms.

Procedures

An Effectiveness of Training Questionnaire was developed to measure teachers' perceptions. Mean and standard deviation were used to determine the level of impact of inclusive education training on effectively preparing teachers to meet the needs of severely and moderately handicapped students in regular classroom settings. T-tests and analysis of variance were used to study how different groups perceived inclusive education training.

Major Findings

1. Teachers perceived inclusive education training as having an average impact on their ability to meet the social needs of students, and a low impact in the motor, cognitive, emotional, communication, health and personal care areas.
2. Teachers perceived inclusive education training as having a low impact on preparing them to work collaboratively with other school professionals.
3. Elementary, middle, and secondary teachers perceived the training as having a low impact.
4. Teachers with varying years of experience perceived the training as having a low impact.
5. General education teachers perceived the training as having a low impact in all areas, while special education teachers perceived an average impact in the social and cognitive areas.
6. Teachers attending the three sessions perceived the training as having a low impact for preparedness.
7. The number of inclusive education students that a teacher worked with had no effect on the perceived impact.
8. Teachers in one district perceived the training to be highly effective. The other seven districts perceived the training as having an average or low impact.
9. Teachers who volunteered for inclusive education students perceived the training as having an average impact overall; those assigned students perceived the training as having a low impact.

Copyright by
Anne Marie Pecotte
1991

I wish to dedicate this work to my husband, Bob, and my daughter, Bobbi Sue. Their love, encouragement, and understanding made this goal a reality. Thank you for your continuous commitment and support. I love you both.

ACKNOWLEDGMENTS

I wish to acknowledge and thank my advisor, Dr. John Suehr. His encouragement and guidance sustained me during difficult times and his love for life and learning taught me the importance of balance. I value his friendship and continue to be influenced by his personality. I am grateful that our lives intersected during the course of this degree.

I also wish to thank Dr. Daniel Kruger, Dr. Donald Burke, and Dr. Louis Romano for serving on my dissertation committee. Their advice and direction provided the guidance and support that I needed to finalize my thesis.

Lastly, I wish to thank Cynda Davidson for typing my dissertation. Her help was deeply appreciated.

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	x
LIST OF FIGURES	xiii
<u>CHAPTER</u>	
I. THE PROBLEM	
Introduction	1
Purpose of the Study	8
Need for the Study	9
Definition of Terms	10
Assumptions	15
Limitations	16
Research Questions	17
Design of the Study	22
Overview of the Study	25
II. REVIEW OF THE LITERATURE	
Introduction	27
Historical Perspective	29
Legal Perspective	31
Research Review	42
III. DESIGN OF THE STUDY	
Purpose	56
Population	57
Construction of the Questionnaire	58
Validity	60
Reliability	60
Data Gathering	61
Analysis of the Data	61
Interpretation of the Data	62
Research Questions	63
Summary	69

IV. ANALYSIS OF THE DATA

Demographic Data	72
Research Question 1	79
Research Question 2	82
Research Question 3	84
Research Question 4	86
Research Question 5	89
Research Question 6	91
Research Question 7	93
Research Question 8	95
Research Question 9	98
Research Question 10.	100
Research Question 11.	104
Research Question 12.	108
Research Question 13.	112
Research Question 14.	116
Research Question 15.	120
Research Question 16.	125
Research Question 17.	130
Research Question 18.	134
Research Question 19.	139

V. SUMMARY, FINDINGS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

	143
Summary	143
Design of the Study	144
Findings	145
Research Question 1	145
Research Question 2	146
Research Question 3	148
Research Question 4	149
Research Question 5	151
Research Question 6	152
Research Question 7	154
Research Question 8	155
Research Question 9	156
Research Question 10.	158
Research Question 11.	159
Research Question 12.	161
Research Question 13.	162
Research Question 14.	164
Research Question 15.	165
Research Question 16.	167
Research Question 17.	170
Research Question 18.	171
Research Question 19.	173
Conclusions	175
Recommendations	177
Suggestions for Further Research	179
Reflections	181

APPENDICES

A. Letters 184
B. Effectiveness of Training Questionnaire 193

BIBLIOGRAPHY 202

LIST OF TABLES

Table

1.	Return of Effectiveness of Training Questionnaire	58
2.	Effectiveness of Training Questionnaire: Key to Items for Each of the Seven Areas of Student Need	60
3.	Frequency Distribution of Teachers' Responses to the Demographic Questionnaire Items	74
4.	Mean Responses on the Impact of Inclusive Education Training on Meeting the Cognitive Needs of Students	81
5.	Mean Responses on the Impact of Inclusive Education Training on Meeting the Social Needs of Students	83
6.	Mean Responses on the Impact of Inclusive Education Training on Meeting the Emotional Needs of Students	85
7.	Mean Responses on the Impact of Inclusive Education Training on Meeting the Communication Needs of Students	88
8.	Mean Responses on the Impact of Inclusive Education Training on Meeting the Motor Needs of Students	90
9.	Mean Responses on the Impact of Inclusive Education Training on Meeting the Health Care Needs of Students	92
10.	Mean Responses on the Impact of Inclusive Education Training on Meeting the Personal Care Needs of Students	94
11.	Mean Responses on the Impact of Inclusive Education Training on Collaboration	97

12.	Overall Mean Responses on the Impact of Inclusive Education Training on Meeting the Cognitive, Social, Emotional, Motor, Communication, Personal Care, and Health Care Needs of Students	99
13.	Overall Mean Responses on the Impact of Inclusive Education Training Among Elementary, Middle, and Secondary Teachers	101
14.	ANOVA Among Elementary, Middle, and Secondary Teachers	103
15.	Overall Mean Responses on the Impact of Inclusive Education Training Among Teachers with Varying Years of Experience	105
16.	ANOVA for Years of Teaching Experience	107
17.	Overall Mean Responses on the Impact of Inclusive Education Training Between General and Special Education Teachers	109
18.	Two Sample t-Test for General and Special Education Teachers	111
19.	Overall Mean Responses on the Impact of Inclusive Education Training Among General Education Teachers With Some College Course Work in Special Education	113
20.	ANOVA Among General Education Teachers With Zero, One, Two, Three, or More Courses in Special Education	115
21.	Overall Mean Responses on the Impact of Inclusive Education Training Among Teachers Attending Different Training Sessions	117
22.	ANOVA Among Two, Three, and Five Day Training Sessions	119
23.	Overall Mean Responses on the Impact of Inclusive Education Training Among Teachers With and Without Inclusively Placed Students	122
24.	ANOVA for Number of Inclusive Education Students Teachers Worked With.	124
25.	Overall Mean Responses on the Impact of Inclusive Education Training Among Teachers With Varying Staffing/Consultation Meetings	127

26.	ANOVA for Number of Staffing/Consultation Meetings Teachers Participated In	129
27.	Overall Mean Responses on the Impact of Inclusive Education Training in Each School District Represented	131
28.	Two Sample t-Test for Male and Female Teachers . . .	133
29.	Overall Mean Responses on the Impact of Inclusive Education Training in Each School District Represented	136
30.	ANOVA for Each School District Represented	138
31.	Overall Mean Responses on the Impact of Inclusive Education Training Between Teachers Who Volunteered or Were Assigned Inclusive Student Placement(s)	140
32.	Two Sample t-Test for Volunteered or Assigned Inclusive Education Student Placement	142

LIST OF FIGURES

Figure	<u>Page</u>
1. Continuum of Educational Services	39
2. Historical Perspective	41

CHAPTER I

THE PROBLEM

Introduction

Special education has undergone many changes in the past 25 years. In the early 1960s, many severely handicapped children were 'kept' at home, safely protected from the taunts and abuses of an unaccepting society. Hospital and institutional placements emerged as a common practice with the expectation of providing care and comfort to these children. Little thought was given to their educational needs or to their eventual introduction and participation in home communities.

Parental dissatisfaction with the services and care options provided to children with disabilities resulted in court action in several states which ultimately increased the awareness of the handicapped students' plight and the availability of supported services for these children (Pennsylvania Association for Retarded Citizens v. Commonwealth of Pennsylvania, 1971; and Mills v. Board of Education of the District of Columbia, 1972). This litigation prompted the Federal government to enact

legislation that had a pervasive effect throughout the United States. Section 504 of the 1973 Rehabilitation Act and Public Law 94-142, passed in 1975, called the Education for All Handicapped Children Act, mandated that free, appropriate educational opportunities and services be provided to ALL handicapped children. Incorporating previous litigation and legislative provisions, these laws assured the right of all handicapped children to a public school education.

The Education for All Handicapped Children Act ensured basic educational rights to disabled children and included the following tenets: (1) a free appropriate public education, (2) an individualized education program, (3) special education services, (4) related services, (5) due process procedures, and (6) the least restrictive environment (LRE) in which to learn. Interpretation of the least restricted environment has been defined as the general education classroom in the public school facility.

Although P.L. 94-142 has been in existence since 1975, only in the last decade have parents, professionals, universities and State Departments of Education voiced a desire to examine the strictest interpretation of the law for severely handicapped students and to possibly eliminate the dual, special and general, educational system that is currently operating throughout the United States.

Parents have requested full inclusion in public school classrooms for their children with severe and moderate

developmental disabilities. These requests have been met with mixed reactions. Some students were included in regular education classrooms in their home districts while others were denied this access because local education agencies perceived themselves as being ill-prepared to provide necessary services to severely handicapped children in age appropriate regular education classrooms. The Office of Civil Rights became involved in these cases to protect handicapped students from such discriminatory actions which clearly violate constitutional rights as well as the provisions of the Vocational Rehabilitation and the Education for All Handicapped Children Acts. The issue of separate and equal education was determined by the courts in 1954 in *Brown v. Board of Education*. The Supreme Court ruled at that time that educating black children in separate facilities was a violation of their constitutional rights.

Handicapped students have the same constitutional rights as other minority groups and the public at large. They cannot be barred from the public school classrooms and forced to receive their education in institutions and/or segregated classroom settings. Upholding the provisions of Public Law 94-142, the court has determined that separate facilities are restrictive and classroom placement with the assistance of support help and aids must be implemented regardless of cost or district preparation whenever determined to be appropriate by the individualized educational planning team.

The impetus for change was initiated through the courts as well as the current legislation. Many educators have called for a paradigm shift in the delivery of services to children with disabilities. This emphasis has led to system changes in many districts across the country. In Michigan, we are currently piloting these changes in five designated sites throughout the state.

Inclusive education has been given various definitions throughout the literature but according to Beekman (1990) it usually refers to the philosophy or policy of intergrating all handicapped students, particularly those with the most severe impairments, into regular education classes for the substantial portion of the student's school day.

Regular education teachers are being faced with the additional challenge of providing instruction and care to students with severe disabilities who have been placed in their general education classrooms. Disagreement with the philosophy, apprehension, and a general feeling of inadequate preparation and time for teaching such extremely challenging needs students are common concerns expressed by teachers faced with this change (Davis, 1989; Kunc, 1984).
x Additionally, some teachers indicate that they did not choose to work with handicapped children and do not have the patience, skill, or desire to successfully integrate them into classrooms (Kunc, 1984). Many feel that it is difficult or nearly impossible to meet the needs of the mildly impaired students, such as the learning disabled,

emotionally impaired and the speech and language impaired, currently mainstreamed into their classes for most of the day. The needs of the severely disabled students would be even more difficult to accommodate and would overburden classroom teachers who already feel the pressure of increased curriculum requirements and accountability for student learning.

Teachers' unions at the national, state, and local levels are becoming actively involved with the inclusive education process. Contract language stating that regular education teachers must be provided with training to facilitate the instruction and behavioral management of handicapped students in the regular education setting is common. The Gwinn Education Association contract states in Article XXI, Inclusive Education or Its Equivalency, Section 1, paragraph D-1 that:

. . . The employer shall:

Within the sixty (60) days of the start of the school year, and periodically thereafter, provide in-service training to regular education personnel regarding the instruction and behavioral management of handicapped students in the regular education classroom setting. A variety of such programs will be provided, the subjects to include the differing approaches, problems and techniques to be utilized with varying handicapping conditions, to be mutually agreed upon by the Employer and the Association. Such in-service training shall be expedited for any regular education personnel who shall be asked to

provide or supervise instructional services to any handicapped students identified as severely multiply impaired, severely mentally impaired, autistically impaired, trainable mentally impaired or severely language impaired.

Such in-service training has been provided to teachers in the Marquette-Alger Intermediate School District area through a cooperative effort among the Michigan Inclusive Education Project, Special Education Services, Michigan Department of Education, Wayne State University, the Marquette-Alger Intermediate School District (MAISD) and the local education agencies in the MAISD area. The training is designed to support teachers in their efforts to integrate severely/moderately handicapped students into age appropriate regular education classrooms on a full-time basis.

The training conducted by personnel from the Developmental Disabilities Institute at Wayne State University consisted of seven units of study. The units and their objectives are listed below (England, Gutsell, LeRoy, and Osbeck, 1990).

Unit One, Making the Paradigm Shift, included the following objectives:

- You will become familiar with the concept and values of inclusive education and inclusive schools.

- You will have an opportunity to explore your own personal values about inclusion and working with many students with a variety of educational needs.

Unit Two, Fostering a Collaborative Team, had the following objectives:

- You will learn the characteristics of collaborative teams.
- You will develop skills in collaborative teaming.

Unit Three, Beginning the Planning Process: MAPS, focused on this objective:

- You will develop skills in facilitating a MAPS (McGill Action Planning System) process.

Unit Four, IEP At-A-Glance, Curriculum Matrix, included objectives related to finding the connections between the student's needs and the curricular goals in the regular education classroom.

- You will develop skills in creating an IEP-At-A-Glance.
- You will develop skills in creating a curriculum matrix.

Unit Five, Curriculum Accommodation, focused on the following objectives:

- You will develop skills in individualizing goals and goal achievement.
- You will develop skills in adapting the curriculum.
- You will develop skills in creating materials and devices to assist students.

Unit Six, Building Relationships: Peer Empowerment, had the following objective:

- You will learn to play a variety of activities that utilize peer empowerment strategies.

Unit Seven, Daily Schedule Development: Planning for Survival, Management, Support, and Fun, had one objective:

- You will develop a daily schedule for a student including specific classroom activities by content areas, staff and student responsibilities, environmental locations, environment and material adaptations, and staff responsibilities for those adaptations.

Purpose of the Study

This study was designed to analyze the perceptions of teachers in Marquette and Alger counties who received training in the area of inclusive education sponsored by the Marquette-Alger Intermediate School District in cooperation

with the Developmental Disabilities Center of Wayne State University.

The study focused on the effectiveness of the training in relation to the teachers' perceptions on how well they were prepared to meet the cognitive, emotional, social, communication, health care, personal care, and motor needs of moderate to severely handicapped students placed in age appropriate general education classrooms on a full-time basis.

The Need for the Study

As a paradigm change is being considered in education, the feasibility of this change needs to be well documented. The achievement levels of integrated students and their regular education peers have been evaluated (Falvey, 1980) and cost analysis studies have been completed (Stainback and Stainback, 1984; Reynolds and Wang, 1983; Wang and Birch, 1984). The literature supports the need for study on the effectiveness of pre-service and in-service training being provided to teachers (Stainback and Stainback, 1989; Thousand, Fox and Williams, 1987; Vandercook, York and Forest, 1989; Villa and Thousand, 1988). Training programs are costly and time consuming and must be evaluated to determine the overall effectiveness in preparing school personnel for the challenges of the inclusive education

student. Team training costs, in Michigan, for one inclusive student range from \$1500 to \$3000, not including substitute teacher's costs for the four to eight teachers on the team, travel and lodging costs, and the follow-up consultation costs. The teachers' perceptions of the effectiveness of the training are extremely important as more and more teachers' unions are advocating contract language that requires training for teachers selected to work with inclusive education students; and as increasing numbers of severely and moderately handicapped students are being intergrated into general education classrooms.

This study evaluated the effectiveness of a training program being utilized extensively in Michigan to prepare teachers to instruct severely/moderately handicapped students in the regular education classroom. As increasing numbers of severely impaired children enter the public school realm, teachers and administrators must be prepared to provide them the best education possible. Providing teachers with applicable in-service training, to increase their competence and confidence, is an important element in the overall effectiveness of the inclusion process.

Definition of Terms

For this study, the following terms are defined in the context in which they are used in this dissertation.

Cognitive Needs - the academic areas of student needs including reading, math, and general awareness areas.

Communication Needs - a student's ability to express their wants, needs, and feelings in an appropriate way. This includes verbal, written, and/or augmented methods (e.g. power pad, synthesizer, sign language).

Curricular Infusion - the incorporation of information about and experiences with students with disabilities into ongoing general education curricula.

Emotional Needs - a student's ability to demonstrate proper behavior when responding to peers, adults, and authority figures. This includes the following skills: following directions, staying on task, being attentive, and using physical and emotional self-control.

Health Care Needs - the daily needs of students with minor to acute medical conditions that may require specialized care, training, and/or treatment, including toileting assistance, exercising, personal grooming, administration of medication and medical treatments, and specialized feeding techniques.

Inclusive Education - a term used to identify the placement of moderately/severely handicapped students in the least restrictive environment, specifically, age appropriate placements in regular education classrooms in the neighborhood school.

Inclusive Education Training - an in-service training workshop presented by the Developmental Disabilities Institute of Wayne State University in cooperation with the Michigan Department of Education, Special Education Services, identified Intermediate School Districts, and/or local education agencies for the purpose of preparing educational personnel to meet the needs of severely/moderately handicapped students in age appropriate general education classrooms.

6 Least Restrictive Environment (LRE) - a legal term defined under both federal and state special education laws and regulations that means that handicapped children must be educated with nonhandicapped children to the maximum extent possible appropriate to meet their individual educational needs and potential. Only when classroom placements do not meet the individual students' needs with the use of supplemental aids and equipment would a student be placed in separate classes or settings.

Mainstreaming - a term used to refer to the integration of the more mildly impaired students (such as learning disabled, emotionally impaired, and educable mentally impaired) into regular education classrooms for all or a part of the school day.

Medically Fragile - a term used to describe children with acute medical conditions that require special care and treatment.

Mildly Handicapped - a term used to describe students who are labeled learning disabled (LD), emotionally impaired (EI), educable mentally impaired (EMI), speech and language impaired (SLI) and/or sometimes physically and otherwise health impaired (POHI).

Moderately Handicapped - a term used to describe students who are labeled trainable mentally impaired (TMI) and/or have moderate physical disabilities that limit their school success such as hearing impairments, visual impairments, and cerebral palsy.

Motor Needs - the ability of a student to demonstrate gross motor movements from flexing large muscles to the intricate task of writing and drawing which utilizes fine motor control.

Personal Care Needs - this term refers to the self help skills that students need to function in everyday life such as eating, dressing, undressing, toileting, personal cleanliness, and grooming.

Public Act 94-142 - the Education for All Handicapped Children Act of 1975. This Act guarantees handicapped students their right to a free public education in the least restrictive environment.

Regular Education Initiative (REI) - the movement advocating that the general education system assume unequivocal, primary responsibility for all students in our public schools including identified handicapped students as well as those students who have special needs of some type (Davis, 1989). The regular education classroom provides the location of any supportive services and children are not "pulled-out" and put into supportive programs.

Severely Handicapped - this term refers to students who are labeled severely mentally impaired (SMI), and/or severely multiply impaired (SMI) and includes children with profound mental and physical handicaps including blindness, deafness, and developmental disabilities.

Social Needs - the ability of a student to live and work with other human beings in the classroom and community

settings. The development of friendships and appropriate behavior patterns is the focus.

Total Integration - a term used synonymously with inclusive education throughout the literature. It refers to the philosophy of integrating ALL handicapped students in age appropriate regular education settings.

Assumptions

The assumptions of this study included the following:

1. Teachers perceive inclusive education training as a necessary element in the integration of severely handicapped students.
2. The Teachers' Perceptions of the Effectiveness of Inclusive Education Training Questionnaire measured teachers' perceptions as to the extent to which inclusive education training helped them to meet the seven areas of needs for students with severe/moderate disabilities: Cognitive, emotional, social, motor, communication, health care, and personal care.

3. Teachers require additional training to effectively instruct severely/moderately handicapped students in the regular education classroom.

Limitations

The limitations of this study included the following:

1. This study was limited to the teachers in the Marquette-Alger Intermediate School district who currently teach in a regular education classroom or a special education classroom in a public school building and have completed one of the training sessions on inclusive education.
2. This study was limited to the teachers' perception of effectiveness.
3. This study was limited to the teachers' ability to accurately describe their perceptions of the inclusive education training.
4. The data in the questionnaire was limited by the sincerity of the respondents.
5. The study was limited to those teachers who choose to respond.

Research Questions

The purpose of this study was to examine the extent to which inclusive education training has affected teachers' perceptions of their ability to meet the needs of fully integrated severely and moderately handicapped students in general education classrooms in the Marquette-Alger Intermediate School District.

The specific research questions included:

1. To what extent do teachers perceive inclusive education training as affecting their ability to meet the cognitive needs of severely and moderately handicapped students in general education classrooms?
2. To what extent do teachers perceive inclusive education training as affecting their ability to meet the social needs of severely and moderately handicapped students in general education classrooms?

3. To what extent do teachers perceive inclusive education training as affecting their ability to meet the emotional needs of severely and moderately handicapped students in general education classrooms?
4. To what extent do teachers perceive inclusive education training as affecting their ability to meet the communication needs of severely and moderately handicapped students in general education classrooms?
5. To what extent do teachers perceive inclusive education training as affecting their ability to meet the motor needs of severely and moderately handicapped students in general education classrooms?
6. To what extent do teachers perceive inclusive education training as affecting their ability to meet the health care needs of severely and moderately handicapped students in general education classrooms?
7. To what extent do teachers perceive inclusive education training as affecting their ability to meet the personal care needs of severely and

moderately handicapped students in general education classrooms?

8. To what extent do teachers perceive inclusive education training as encouraging classroom teachers to work collaboratively with other building professionals to meet the needs of severely and moderately handicapped students in general education classrooms?
9. Do teachers perceive inclusive education training as affecting their abilities in meeting the cognitive, social, emotional, motor, communication, health care, and personal care needs to the same extent?
10. Is there a difference in teacher perceptions about inclusive education training among elementary, middle, and secondary teachers in their abilities to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?
11. Is there a difference in teacher perceptions about inclusive education training among teachers with less than 5 years, 6-10 years, 11-20 years, or 21

years or more of teaching experience in their abilities to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

12. Is there a difference in teacher perceptions about inclusive education training among special and general education teachers in their abilities to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?
13. Is there a difference in teacher perceptions about inclusive education training among general education teachers with some college courses taken in special education in their ability to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?
14. Is there a difference in teacher perceptions about inclusive education training among teachers who received the two (2) day training, the three (3)

or the five (5) day training in their ability to meet the cognitive, social, emotional, communication, motor, health care and personal care needs of severely and moderately handicapped students in general education classes?

15. Is there a difference in teacher perceptions about inclusive education training among teachers with an inclusive education student(s) and teachers without an inclusive education student(s) in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

16. Is there a difference in teacher perceptions about inclusive education training among teachers who received 0 staffings/consultations, 1-3 staffings/consultations, 4-6 staffings/-consultations, 7 or more staffings/consultations following the training in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

17. Is there a difference in teacher perceptions about inclusive education training between male and female teachers in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

18. Is there a difference in teacher perceptions about inclusive education training among teachers from the different school districts in the MAISD in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

19. Is there a difference in teacher perceptions about inclusive education training among teachers who volunteered for student placement in their classrooms and teachers who did not volunteer to work with an inclusive education student but were assigned this responsibility anyway?

Design of the Study

Population

The population of the study consisted of fifty-nine (59) regular and special education teachers from the

Marquette-Alger Intermediate School District area who were enrolled in the Summer 1990 Inclusive Education five (5) day training session at Northern Michigan University (half-day sessions), the September 1990 three (3) day training session in Marquette, and/or the October 1990 two (2) day training session on inclusive education held in Munising, Michigan.

Procedure

A Teachers' Perceptions of the Effectiveness of Training Questionnaire was developed by the researcher based on information provided in LeRoy's "Michigan Inclusive Education Project Evaluation Model" (1991), "The Effect of Classroom Integration on Teacher and Student Attitudes, Behaviors, and Performance in Saline Area Schools," (June 1990), the Program Effectiveness Review: Quality Standards and Criteria for Programs Serving Students with Handicaps (Burke, 1987), "Survey of Organizations 2000" by Rensis Likert Associates, Inc. (1988) and teacher observations and interviews. Dr. Jill England, and Tom Osbeck, integration specialists for the Michigan Inclusion Project, reviewed the questionnaire and suggested changes.

The questionnaire was then field tested using ten percent of the test population. The six teachers field testing the questionnaire were included in the final survey. School administrators, ISD teachers, and other personnel who had participated in the training were administered the

questionnaire to ensure the instrument's validity. Their feedback was utilized to make changes. This pilot administration was used to determine the clarity and validity of the questionnaire.

The questionnaire consisted of seventeen demographic items, and thirty inclusive education training items. The inclusive education training items addressed the teachers' perceptions of how effective the training was in helping them to meet the seven identified areas of need for severely/moderately handicapped students which included: Cognitive, communication, social, emotional, motor, health care and personal care needs.

The responses from the Teachers' Perceptions of the Effectiveness of Training Questionnaire were keyed into the computer at Northern Michigan University. The Statistical Package for Social Sciences (SPSS) was utilized to compute the mean and standard deviation for the teachers' responses to each item and for each area studied. T-tests and ANOVA were computed for the areas where the analysis of two or more areas was desired.

Mean and standard deviation were determined to interpret the data from the rating scale of 1 to 5. The means between 1.00 and 2.33 were interpreted as perception of preparedness scores that have low adequacy, the means between 2.34 and 3.67 were interpreted as having average preparedness adequacy, and the means between 3.68 and 5.00 were interpreted as an indication of high impact on

teachers' perceptions of preparedness.

The two sample t-test was used to determine whether significant differences were present when comparing the perceived effectiveness of the inclusive education training among special education teachers and general education teachers, male and female teachers, and teachers who volunteered for inclusive placement and teachers who were assigned placement without volunteering. The means and correlation coefficients were examined to determine significant differences.

Analysis of variance was used to determine whether mean scores on one or more factors differed significantly from each other, and whether the various factors interacted significantly with each other when comparing the perceived effectiveness of the training in the seven identified areas of student needs.

Overview of the Study

The study consists of five chapters, appendices, and a bibliography.

In Chapter I the problem is defined in terms of the need, purpose, definition of terms, assumptions, limitations, research questions, design, and organization of the study.

In Chapter II a review of the literature is presented.

In Chapter III the design of the study is given. This includes a description of the population, questionnaire construction, and procedures for collecting and analyzing the data.

In Chapter IV the data are analyzed.

In Chapter V a summary of the study, findings, and recommendations for further study are discussed.

CHAPTER II

REVIEW OF THE LITERATURE

Exceptional children cannot succeed as well if they are required to learn with their noses pressed to the glass, from the outside looking in. The history of special education reveals that nose-to-the-glass education does not do the job. Indiscriminantly educating exceptional children apart has proven to be bad educational practice, bad social policy, and in the end, bad fiscal stewardship. (Greer, 1988, p. 295)

Introduction

During the last decade, special education delivery systems have been scrutinized, criticized and in some cases changed to reflect the growing trend towards a unified, inclusive educational system capable of meeting the diverse needs of ALL students. Terms like mainstreaming and regular education initiative are being replaced in the literature with the current phrases used to describe the most liberal interpretation of the least restrictive environment available--inclusive education, total integration and zero rejection policies (Villa and Thousand, 1988). Medwetz and Vandercook (1991) defined inclusive education as,

"welcoming, including, and supporting all children, regardless of their abilities into their neighborhood schools, classes, and other learning environments." (p. 1)

Elimination of the dual educational system (regular and special education) which has been in operation since the enactment of Public Law 94-142 in 1975, has been advocated by many authors (Brown et al., 1989; Ford et al., 1984; Forest and Lusthaus, 1990; Fox et al., 1986; Gartner and Lipsky, 1987; Greer, 1988; Halvorsen and Sailor, 1990; Kunc, 1984; Lilly, 1988; Pugach and Sapon-Shevin, 1990; Sapon-Shevin, 1988; Skakun, 1988; Stainback and Stainback, 1984, 1985, 1987, 1988; Taylor, 1982; Thousand, Nevin-Parta, and Fox, 1987; Thousand et al., 1986; Wang, Reynolds and Walberg, 1986, 1988; Westling, 1989; Will, 1986 and Williams et al., 1990).

This concern with the relationship between regular and special education is not new. As early as 1924, the Council for Exceptional Children (CEC) enunciated at a convention in Chicago, a declaration that could have been drafted last week. They called for universal education for all children with special needs and insisted on "suitable educational opportunities," rejecting the idea of labeling (Greer, 1988). Their underlying principle was that education cannot be divided because the child cannot be divided. This declaration, unknown to its authors, was a harbinger of the inclusive education movement that is currently gaining momentum nationally and internationally.

This chapter presents an overview of the growing body of information concerning inclusive education including: A historical perspective, a legal perspective, and a review of the available research.

Historical Perspective:

In the youthful years of our national heritage a total lack of educational opportunities was evidenced for handicapped children. Individuals were thought to be "ineducable" or unable to benefit from education and were therefore not entitled to these services. Most handicapped children were provided safety and security in their homes. They were seldom exposed to the threats of society and society was not exposed to them (Alexander and Alexander, 1985; Fox et al., 1986; and Halvorsen and Sailor, 1990).

Special education programs in the United States started in the early nineteenth century when advocates such as Thomas Hopkins Gallaudet and Horace Mann established educational programs for individuals with specific handicaps or pressured state legislatures to enact legislation supporting these endeavors. In 1817, Gallaudet founded the American Asylum for the Education of the Deaf and Dumb in Connecticut. By 1824 several states followed suit and provided institutions for deaf children funded by state governments. Horace Mann, famous for his efforts in

establishing free compulsory education for all students, was instrumental in establishing facilities for students with other handicapping conditions. Hospitals and residential care facilities were provided for the mentally ill, blind, and physically disabled (Alexander and Alexander, 1985).

Children usually traveled great distances to attend these institutions making residential care a necessity. With increased care responsibilities, the "schools" became more custodial in nature and provided less and less in the form of education. Conditions at these state facilities were later reported to be deplorable, and "inhumane" with "complete isolation" from others (Fox et al., 1986).

Although the state schools provided relief for parents, communities, and limited opportunities for the handicapped, many people were concerned with the alleged conditions in these institutions. Some parents refused to send their children to the state hospitals which were located far from their homes and communities and were becoming less desirable. As a result private schools, often supported by churches, began to emerge to meet the educational needs of these students. And by the beginning of the twentieth century, handicapped children had gained entry into the public schools in several states.

The postwar years, following World War I and the Korean War, added support for the handicapped, as many young servicemen returned to the United States permanently disabled. The attitude of the American people began

changing and an escalating level of acceptance and concern was evident (Halvorsen and Sailor, 1990). Advocacy groups developed such as the National Association for Retarded Citizens, and United Cerebral Palsy. They worked with parents and educators to establish new standards for educating handicapped children (Halvorsen and Sailor, 1990).

The movement toward a more humanitarian and optimistic view of people with moderate/severe disabilities gained momentum in the mid-1950s, when parents and professional advocacy groups campaigned for more adequate and humane services in integrated community settings. The principle of "normalization" was emphasized which stressed the delivery of services in environments and under circumstances that are culturally as normal as possible (Fieldler and Simpson 1987; and Fox et al., 1986; Halvorsen and Sailor, 1990).

Due, in part, to the increased advocacy efforts and the surmounting litigation, federal laws were promulgated to improve community services, including education, for individuals with handicaps.

Legal Perspectives:

The legal parameters for educating students with handicapping conditions in public school classrooms were defined in 1954, with *Brown v. Board of Education* (347 U.S. 483). The United States Supreme Court ruled, in

this landmark decision, that students cannot be discriminated against in their admittance to public schools on the basis of race. Citing the Fourteenth Amendment the court stated that. . . " all students are guaranteed equal protection of the laws." The states' segregation of children in public schools solely on the basis of race deprives minority children of equal educational opportunities, even though the physical facilities and other tangible factors may be equal (Zirkel, 1988, p. 89).

This decision established the 'separate is not equal' framework that many parents, educators, advocacy groups, and local courts have continued to build on. It reinforced the notion that education was extremely important to the "life and minds" of children and ultimately lead to the advocacy efforts in the 1960s and 1970s on behalf of persons with disabilities drawing from the context of the Civil Rights movement.

During this same time frame, the federal government focused several laws on children with disabilities and the services they must be provided. These laws were catalytic in establishing discretionary grant programs, personnel preparation programs, the Bureau of Education for the Handicapped in the U.S. Office of Education, capital funds, regional centers for deaf-blind children and authority for research and demonstration projects (Gartner and Lipsky, 1987).

Two key court decisions instrumentally shaped the direction of the evolving Federal legislation. In 1971, in *Pennsylvania Association of Retarded Citizens (PARC) v. Commonwealth* (334 F. Supp. 1257) a federal district court rejected the reasons school districts had given for excluding students with handicapping conditions. Many districts stated that these students were "uneducable" or "untrainable" and should not be a part of the public school program.

The court ruled that retarded children in Pennsylvania were entitled to a free public education. The ruling further stipulated that whenever possible, retarded children must be educated in regular classrooms rather than be segregated from the normal school population. The court said:

. . . a free, public program of education and training appropriate to the child's capacity within the context of a presumption that, among alternative programs of education and training required by statute to be available, placement in a regular public school class is preferable to placement in a special public class [i.e., a class for "handicapped" children] and placement in a special public school class is preferable to placement in any other type of program of education and training. *Pennsylvania Association of Retarded Citizens (PARC) v. Commonwealth*, 334 F. Supp. 1257 (1971).

In *Mills v. Board of Education* (348 F. Supp. 866, 1972) the federal district court ruled that a district's financial exigencies could not be the basis for excluding students with handicaps; they could not be made to take last place in the queue for funds.

The plaintiffs in this case were seven handicapped black children who were denied publicly supported education in the District of Columbia. The plaintiffs claimed that the magnitude of the problem could be verified by the estimated figures. Out of 22,000 retarded, emotionally disturbed, blind, deaf, and speech or learning disabled children, in the District of Columbia, as many as 18,000 were not being furnished with programs of specialized education (Alexander and Alexander, 1985; Gartner and Lipsky, 1987; Zirkel, 1988).

The defendants were ordered by the court to uphold the Constitution of the United States, the District of Columbia Code, and their own local education regulations to provide a publicly supported education for these "exceptional" children. Their failure to fulfill this clear duty and retain these children in the public school system, or otherwise provide them with publicly-supported education, as well as their failure to afford them due process procedures, was not excused by the court under the guise of insufficient funds. The court established a precedent that would not permit districts to deny appropriate educational services to handicapped students due to financial nonsolvency.

Following the PARC and Mills decisions, federal legislation was introduced in both chambers of Congress during the early 1970s seeking to eliminate discrimination against the handicapped in work and education environments. These measures culminated in the passage of the Vocational Rehabilitation Act in 1973. Section 504 of the Act states:

No otherwise qualified handicapped individual in the United States. . . shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance (29 U.S.C.A. 794).

Although Section 504 is concerned with the discrimination of handicapped individuals in work situations, it also addresses the problems encountered by handicapped children in seeking equal educational opportunity. It includes five mandates that pertain directly to the educational needs of handicapped children including: Location and notification, free appropriate public education, evaluation and placement, and procedural safeguards. These provisions have been used successfully in obtaining desirable school programs and services for individual handicapped students (Alexander and Alexander, 1985).

In 1975, the Education for All Handicapped Children Act, P.L. 94-142 was enacted. Incorporating many provisions of the previous litigation and legislation, this Act assured

the right of all handicapped children to a public school education. The major provisions of P.L. 94-142 (Gartner and Lipsky 1987; Salend, 1990) mandate that:

1. All children with disabilities, regardless of the nature of their handicap, must be provided with a free appropriate public education.
2. Each child with a disability will have an Individual Educational Program (IEP) that is based on and tailored to address the child's unique learning needs.
3. Children with disabilities will be educated in the least restrictive environment with their nonhandicapped peers, to the maximum extent appropriate.
4. Students with disabilities must have access to all areas of school participation.
5. Children with disabilities and their families are guaranteed rights with respect to non-discriminatory testing, confidentiality, and due process.

The least restrictive environment was not defined by Congress in the law, but the legal basis is provided and

practitioners are called upon to define the principle in practical terms. The law clearly states that educational agencies must educate students with disabilities with their nonhandicapped peers as much as possible. The determination of the least restrictive environment is an individual decision, however, based on the student's educational needs rather than the student's disability. P.L. 94-142 states:

To the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped, and that special classes, separate schooling, or other removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily (20 U.S.C. 1412[5][B] 1975).

Data collected in the United States on the least restrictive environment concept since the inception of P.L. 94-142 (1975) indicate that similar numbers of students with disabilities are still being educated in separate facilities, and that there is great variation from state to state in the use of separate facilities for these students (Blackman, 1989; Danielson and Bellamy, 1989; Gartner and Lipsky; Tucker, 1989). Where one lives may have the

greatest influence on the quality of services available to severely and/or moderately disabled children according to Blackman (1989).

Tucker (1989) suggested that the least restrictive environment provision be service-defined rather than location-bound. A service-defined approach to the least restrictive environment focuses on providing services that meet the students' educational needs and help them function successfully in the regular education setting.

A continuum of educational placements ranging from the highly integrated setting of the regular classroom to the highly segregated settings of the residential program has been established to implement the least restrictive environment (Salend, 1990; Taylor, 1988; Tucker, 1989). While services vary from agency to agency, the range from most to least restrictive educational placements for serving students with disabilities is outlined in the continuum of services presented in Figure 1. A student with a disability would be placed in one of the placement alternatives based upon that student's individual needs, skills, abilities, and motivation.

Upholding its concern for handicapped children, Congress passed P.L. 99-457 in 1986, which extended many of the rights and safeguards of P.L. 94-142 to handicapped children, ages birth to five years. P.L. 99-457 encouraged the delivery of early intervention services and included provisions for establishing a child find system to identify

operated by state governments, are facing closures (The Mining Journal, 1991) as more and more handicapped persons are integrated into neighborhood schools and home communities (Hill, Lakin, and Bruinink, 1984). The Federal mandates and Civil Rights litigation have largely been responsible for the shift. Figure 2 provides a synopsis of the legal and educational status of severely and moderately handicapped children throughout history. Attitudes have also changed as the general populace increased their exposure to students with handicapping conditions and as research findings became available regarding the effectiveness of integrated education.

Research Review:

Education has long been the focus of attention, research, and continual review. Ronald Reagan spoke on the national importance of education while he was the president stating:

America has always been enamored of learning. From polished men of letters like Thomas Jefferson to humble self-taught people like Abe Lincoln, and from inventors like Thomas Edison to visionaries like Martin Luther King--Americans put their faith in the power of education to enrich lives and make our nation strong.

Because of its importance, the federal government collects information on education utilizing the data to inform state governments on the status of their educational programs. During the last quarter century government reports indicated an overall decrease in the proficiency levels of our public schools. Information provided in the Coleman Report in 1966, and A Nation At Risk in 1983, combined with the aeronautic success of the Russians in the 1960s and the surmounting technical mastery of the Japanese has prompted additional review and educational reform efforts to maintain our national literacy levels and our competitive edge in the international market.

Special education has grown out of the schools' failure to cope with educating significant numbers of children. The swelling numbers within categories and the ever increasing new classifications are indicative of a system that continues to fail. Developing the dual educational system, that of special education and regular education, allowed regular educators to continue teaching to the narrow norm in the same traditional approach (Skakun, 1988).

It has been sixteen years since the passage of P.L. 94-142. We are now examining the effectiveness of the special education programs established as a result of the Education for All Handicapped Children Act. To our dismay many of the "pull-out" programs have failed to prepare students for the "real world" facing them after graduation.

Critics now believe that the dual system weakened our educational process by providing significant numbers of students with lowered expectations and segregated learning environments (Stainback and Stainback, 1984; Wang, Reynolds and Walberg, 1986; Will, 1986). Separate classes did not help mildly impaired students develop the prerequisite skills for successful integration in community settings following graduation. Gartner and Lipsky (1987) reported that there is no compelling evidence that segregated special education programs have significant benefits for students.

On the contrary, there is substantial and growing evidence that goes in the opposite direction (Lipsky and Gartner, 1987). A call for a paradigm shift, is echoing throughout the United States and the world.

In 1981, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) met in Heidelberg, West Germany, to present a final report entitled, "Meeting of Experts on Integration of Severely and Multiply Handicapped Persons into General and Vocational Education." This international committee included members from France, Germany, the United States, Poland, Lebanon, Australia, Uruguay, and many other countries. UNESCO agreed that,

Acceptance of the principle of integration implies a recognition that all persons, irrespective of the severity of any handicapping conditions, have the right to live, be educated, enjoy leisure and be supported in environments which place minimal restrictions upon freedom and personal dignity (p. 8).

They affirmed that goals of full participation and equality must be achieved for even the most severely handicapped members of society and recognized that although integration was accepted as an ultimate goal, the means by which this is approached will vary tremendously even among societies at comparable stages of social and economic development. The UNESCO participants, suggested the need for organizing a continuum of services in order to cater fully to individual needs. They further stated that member

States should make every effort to ensure equality of access to education for severely and multiply handicapped children.

Education for handicapped persons should be provided as far as possible, within the existing educational system of the country, using separate educational facilities only when no other alternative is possible (p. 15).

They supported and emphasized the need for effective educational and social research regarding programming models, and noted that currently (1981) a universal model for integrating severely and moderately handicapped children into any given educational system did not exist.

Canada has been a world leader in the integration of severely and moderately handicapped students. Skakun (1987) challenged the theoretical knowledge base upon which the Canadian separate special education delivery system had been developed, and provided arguments for integration of special needs children into the mainstream of education. This movement to educate ALL children - even students labeled as severely or multiply handicapped - in ordinary classrooms with their brothers and sisters, friends and neighbors, has caught the imagination of parents and educators across Canada. The movement is founded on a simple yet profound philosophy: Everyone belongs. In Waterloo Region Separate School Board, for example, which has a student population of 22,000, very few children are served in self-contained classes. All the other children with special needs are

learning alongside their age peers in ordinary classrooms (Forest and Lusthaus, 1990).

In the United States, we have had many researchers in the inclusive education movement. Vermont has a state-wide integration policy that utilizes the "shared ownership" philosophy among regular and special educators for the education of the challenging students within regular classrooms in local public schools in effect since the early 1980s. Their "Homecoming Model" utilizes a building-based planning team and a consultant approach to deliver special education and related services to challenging students (Thousand et al., 1986). Fox et al. (1986) described the "best educational practices" which promote the preparation of students with moderate/severe handicaps for adult life. They included integrated school learning as one of the nine components used successfully by the state of Vermont. Forest and Lusthaus, 1990; Fuchs and Fuchs, 1988; Osguthorpe, 1985; Phillips and McCullough, 1986; and Wang, Reynolds and Walberg, 1986, all provided integration models that have been demonstrated to be successful with moderately and severely handicapped students educated in age appropriate general education classrooms in neighborhood schools.

Hawaii incorporated a state-wide integration program and Falvey (1980) reported on the successful integration of severely handicapped kindergarten students in that state. Minnesota, California, Michigan, and Wisconsin all provide

integrated classroom opportunities for severely and moderately handicapped students. Although, the programs are not implemented state-wide, in most cases, increasing numbers of school districts are moving toward inclusion.

Vandercook, York and Forest (1989) stated:

For integrated education to be successful, several aspects of current education services will necessarily change. Special education personnel and resources will change the focus of their services from one of educating children in separate environments to one of providing support and instruction in regular classrooms and other typical school environments. Regular educators will begin to include all children in their classes. Administrators will provide leadership and support building personnel to build integrated school communities in which collaborative teamwork develops among all educators (p. 24).

Madeleine Will (1986), Assistant Secretary for the Office of Special Education during the Reagan administration reported that Americans now recognize the fact that we have expected too little of our students, and that we have gotten what we expected. She advocated a merger of special and regular education administrative structures as necessary to facilitate quality integration, where students with severe disabilities will be regarded as having equal status with their nonhandicapped peers.

Parents of children with severe disabilities have been instrumental in the initiation and continuation of the integration process. They support one another and provide necessary information for successful integration. Many requests for integration result from the advocacy efforts of other parents with handicapped children (Bohlin, 1989). Parents have reported social, emotional and academic benefits from placing children with special needs in age appropriate, least restrictive environments.

Elias et al. (1983) also reported that the integration arrangement is cost effective. It cost between \$2,000 and \$3,000 less per year for her son with Down's Syndrome to be educated in his neighborhood school with an aide, than if he were in a special education class. Halvorsen and Sailor (1990) reported that in a study of over 50 public school systems, administrators of integrated programs noted cost savings in transportation and administrative overhead. They hypothesized that while perceived cost increases appear to inhibit integration, information regarding decreases in costs will facilitate integrated placements. A comparative cost analysis completed in Pittsburgh compared a full time mainstreaming program and a dual system of regular and special education. Although the initial costs were high to start up the program, the district realized a saving of

\$20,000 during the first year (1980-81). In the following years schools participating in the mainstreaming model noted a fifty percent reduction in costs (Reynolds and Wang, 1983; Wang and Birch, 1984).

Additional investigation is needed in this area. Some researchers are indicating that this is not a financial issue but rather an ethical issue. Biklen (1985) reported that despite the fact that school trustees, administrators and educators consider the feasibility of integration an economic issue, it is an ethical issue. Skakun (1988) purported that slavery in America would not have been abolished if economics rather than ethics had been the primary consideration. She stated:

It is not morally right to enslave other human beings nor is it morally right to force children identified as disabled to live in a subculture rather than in their culture. Integration needs to be made a priority and funds need to be re-allocated to plan and prepare for integration (Skakun, 1988, P. 51).

The social advantages of integration have been well documented. Brinker (1985) found that despite inherent biological and behavioral limitations, students in integrated groups engaged in more than twice as much social behavior as did their peers in segregated groups and the proportion of positive interactions was significantly greater for integrated groups. Parents have joined

researchers in reporting positive effects for moderately and severely handicapped students integrated into general education classrooms (Bohlin, 1989; Brinker and Thorpe, 1984; Elias, 1980; Elias et al., 1983; Falvey, 1980; Ford et al., 1984; Fredericks, 1986; Halvorsen and Sailor, 1990; Hanlin and Halvorsen, 1989; Knapczyk, 1989; and Lipsky and Gartner, 1987).

Forest and Lusthaus (1990) described quality education as effective teaching of the three-R's, and stated that it also included emphasis on relationships. The philosophy that "everyone belongs" encompasses the children who have previously been told, they did NOT belong. As they bring their special gifts and special needs to regular classrooms and enter into relationships with their neighbors and classmates, they can add to the quality of education for everybody.

Bud Fredericks (1986) described how presenting clear information about people with disabilities helped his son. Many schools are using "curricular infusion" to inform nondisabled students about the handicaps prevalent in our society (Aksamit and Alcorn, 1988). Using this principle, a science class would include a unit on genetic abnormalities and focus on Down's Syndrome as part of the regular course of study. This information would help general education students understand the abilities and disabilities of their integrated peers with handicaps.

Hanline and Halvorsen (1989) indicated that movement of the child to an integrated setting significantly increased family expectations for their son's or daughter's future functioning. Halvorsen and Sailor (1990) reported on the findings of a study conducted by Wang and Baker in 1986. They utilized meta-analysis techniques to select and examine eleven empirical studies from a total pool of 264 studies of mainstreaming effects over a ten-year period. Results showed that mainstreamed special education students consistently outperformed their segregated peers from comparable disability classification groups. Halvorsen and Sailor (1990) and Brinker and Thorpe (1984) also reported an increase in the quality of the IEPs of integrated students in comparison to their segregated peers. Integration has been reported to be an important aspect of curricula for severely handicapped students.

With the current literature indicating the positive effects of inclusion, Bogdan (1983) and Blake (1986) question why we continue to ask if integration is a good idea. They stated that the real question to be investigated when examining students with disabilities is: How do we make integration work for all children?

Successful integration is not dependent on the degree of handicap but it is dependent on: 1. positive teacher, assistant and administrator attitude, and 2. thorough teacher and school preparation (Skakun, 1988).

Repeated documentation of teachers feeling ill equipped to teach special needs children (Brown et al., 1989; Dahl, 1986; Skakun, 1988) bring to our attention the districts', and universities' responsibility in preparing all teachers for instruction of disabled students in regular classrooms. Skakun (1988) reported on a study completed by Humel where ninety-nine percent of the Ontario teachers surveyed believed in-service training to be "very important" or "somewhat important" in facilitating the maintenance of children with special needs in regular classrooms.

Current models being utilized successfully in the United States also emphasize the importance of teacher training (England, Gutsell, LeRoy, and Osbeck 1990; Thousand, Fox, and Williams, 1987; Fox, Thousand, Fox, Williams, Lewis, Reid, Creedon, 1986; Skakun, 1988; Villa and Thousand, 1988). Halvorsen and Sailor (1990) reported that two separate investigations demonstrated the positive impact of in-service training on the attitudes of regular educators toward severely disabled students.

Researchers in the educational field are advocating preservice training programs that would better prepare our future teachers to meet the diverse needs of all students (Mesinger, 1985; Pugach, 1987; Sapon-Shevin, 1988; Stainback and Stainback, 1984; Stone and Brown, 1987). Many universities currently require general education teachers to complete courses in special education before degree completion. This may help the future generations of

teachers, but the educators now working in the field need to be prepared to meet this new challenge. In-service training programs, such as the Michigan Inclusive Education Project, are available to veteran teachers working in the public schools. The effectiveness of these programs in meeting the needs of teachers currently working with special education students must be evaluated.

The rationale for inclusion is strong. Students with challenging needs are entering public school classrooms daily, and education agencies have a need for good in-service training programs. Parents are advocating more and more inclusion and educators, researchers, and school administrators are examining the possibilities. In light of the legal rights, the moral issues, and the positive results, it is questionable whether severely handicapped students should continue to be segregated in separate facilities.

Don Vesey (1986), a parent of a severely handicapped child, provided this account of the hurdles that handicapped students and their parents have encountered, and the benefits realized from an integrated classroom.

From where she was to where she is now is phenomenal. When she started into the educational system she was extremely spastic, she made no meaningful movements. She was tube-fed, she was deep suctioned. . . . She gave no indication of being aware of her environment. Her expression, her demeanor, everything was the same

no matter what she was doing. She actually seemed, even semicomatose. . . a perfect candidate to over protect. Also a perfect candidate to set artificial barriers for--mental barriers that we set for these kids; "She doesn't even know where she is; how can we improve her quality of life when she doesn't show any indication that she knows where she is?" When we place these artificial barriers there we make them self-fulfilling prophecies. They said, "Let her die" after her accident; "She'll be a vegetable; she'll never know the difference; why ruin three lives for the benefit of one who's never going to do anything anyway?" Then they said to put her in the state hospital. . . .When we brought her home from the hospital the back of her head was touching her buttocks; that's how she was neurologically postured. . . .Our barriers were identified for us: "She won't go any further so what are you worrying about? Get on with your lives and forget about it." But early on we learned that we don't decide what she'll accomplish or what she won't accomplish. We have to provide her with every opportunity to show us what she can accomplish. . . .If they're not on an integrated school site, you're taking away those opportunities to break down those barriers. . . .Now, she moves, she's totally flexible, she gets herself sitting up; she's starting to pull herself in a kind of crawl; she can stand up, she sits in a wheel chair; she feeds herself with a spoon, she says a few words, she smiles when she's happy, she's aware, she has personality. I mean, we've gone so far beyond the optimum quality of life that was identified for her to us that you can't even talk about it. Integrated opportunities have been

a major part of that ongoing growth. When they're educated in their own communities they are a part of their community - when they're educated outside of that community, they become invisible members of the community.

The needs of handicapped students will best be met by prepared teachers, schools and communities. Effective training programs are essential to the success of the integration process.

CHAPTER III

DESIGN OF THE STUDY

This chapter provides a description of the survey procedures and research methods used in conducting the study. Specifically, the following areas are addressed:

1. Purpose of the Study
2. Population Description
3. Construction of the Questionnaire
4. Validity of the Questionnaire
5. Reliability of the Questionnaire
6. Data Gathering
7. Analysis of the Data
8. Interpretation of the Data
9. Research Questions
10. Summary

Purpose of the Study

The study was designed to analyze the perceptions of teachers in Marquette and Alger counties who received

training in the area of inclusive education sponsored by the Marquette-Alger Intermediate School District in cooperation with the Developmental Disabilities Center of Wayne State University.

The focus of this study concerned the effectiveness of the training in relation to the teachers' perceived preparedness for meeting the cognitive, emotional, social, communication, health care, personal care, and motor needs of moderate to severely handicapped students placed in age appropriate general education classrooms on a full-time basis.

Population

The population of the study consisted of all teachers from the Marquette-Alger Intermediate School District area who were enrolled in the Summer 1990 Inclusive Education five (5) day training session at Northern Michigan University, the September 1990 three (3) day training session in Marquette, and the October 1990 two (2) day training session on inclusive education held in Munising, Michigan. Fifty-nine (59) general education and special education teachers participated in the inclusive education training workshops conducted during the dates mentioned above. All fifty-nine (59) teachers were asked to participate in the study. Eighty-five (85) percent of the

total population chose to participate by returning the questionnaire. Fifty (50) of the fifty-nine (59) participants returned the questionnaire.

Table 1 Return of Effectiveness of Training Questionnaire

Total Teacher Population	Total Teacher Return	Teacher Percent Return
59	50	85

Construction of the Questionnaire

The questionnaire was developed by the researcher based on LeRoy's "Michigan Inclusive Education Project Evaluation Model" (1991) and "The Effect of Classroom Integration on Teacher and Student Attitudes, Behaviors, and Performance in Saline Area Schools," (June 1990); the Program Effectiveness Review: Quality Standards and Criteria for Programs Serving Students with Handicaps (Burke, 1987); "Survey of Organizations 2000" by Rensis Likert Associates, Inc. (1988); and teacher observation and interviews. Dr. Jill England and Tom Osbeck, integration specialists for the inclusion project, reviewed the questionnaire and suggested changes.

The questionnaire was field tested using ten (10) percent of the test population. These six teachers were included in the final questionnaire survey. Revisions were made when needed.

The questionnaire consisted of seventeen demographic items and thirty inclusive education training items. The demographic items were: Sex, age, teaching level, teaching area, years of experience, length of workshop, location of workshop, number of staffings, adequate support, facilitator during staffings, inclusive education aide, number of inclusive education students, length of time working with inclusive students, college courses in special education, attitude change, volunteered for assignment, and support personnel working with. There were varying numbers of questions for each of the seven identified areas of student needs, including: Cognitive, social, emotional, communication, motor, personal care, and health care (Table 2).

Each inclusive education item was answered by an "extent scale": 1 - To a very little extent (VL), 2 - To a little extent (L), 3 - To some extent (S), 4 - To a great extent (G), and 5 - To a very great extent (VG). Written permission was granted by Rensis Likert Associates to use their "extent scale".

Table 2 Effectiveness of Training Questionnaire: Key to Items for Each of the Seven Areas of Student Needs

Student Need Area	Question Numbers
Communication	10, 11, 12, 13, 14, 15
Cognitive	5, 6, 7, 8, 9
Emotional	20, 21, 22, 23, 24
Health Care	29, 30
Motor	16, 17, 18, 19
Personal Care	25, 26, 27, 28
Social	1, 2, 3, 4

Validity

Validity of a questionnaire is the degree to which the questionnaire measures what it is designed to measure. The Teachers' Perception of the Effectiveness of Training Questionnaire was reviewed by a panel of eight MAISD and LEA administrators, and Michigan Inclusive Education Project specialists to ensure validity. Revisions were made based on written comments from this panel.

Reliability

Reliability is the ability of a measuring device to measure consistently over repeated administration to the same set of respondents. Six teachers and two program specialists reviewed the questionnaire to determine the

clarity of questions. Revisions were made based on their input. This panel of six teachers piloted the questionnaire and additional revisions were made when warranted.

Data Gathering

The Special Education Director of the Marquette-Alger Intermediate School District and the Education Department of Northern Michigan University were contacted, to provide the names and addresses of the persons who had received training in the Inclusive Education Project. Additionally, the Superintendents for eight area public schools included in this ISD region, were contacted for permission to conduct the study in their respective districts.

Questionnaires were mailed to the participating respondents with a cover letter, and endorsement statement from a school official. A self-addressed return envelope was provided for respondent convenience. A follow-up mailing was also used when the response rate was below acceptable standards in a particular district.

Analysis of the Data

The responses from the Teachers' Perception of the Effectiveness of Training Questionnaire were keyed into the

computer at Northern Michigan University. The Statistical Package for Social Sciences (SPSS) was utilized to compute the mean and standard deviation for the teachers' responses to each item and for each area studied. T-tests and ANOVA were computed when the analyses of two or more areas were desired.

Interpretation of the Data

The questionnaire measured teachers' perceptions of the extent to which inclusive education training prepared them to meet the needs of fully integrated moderately/severely handicapped students in the following areas: Cognitive, social, emotional, communication, motor, health care, and personal care.

Mean and standard deviation figures were determined to interpret the data from the rating scale of 1 to 5. The means between 1.00 and 2.33 were interpreted as perception of preparedness scores that have low impact, the means between 2.34 and 3.67 were interpreted as having average preparedness impact, and the means between 3.68 and 5.00 were interpreted as an indication of high impact on teachers' perceptions of preparedness.

The two sample t-test was used to determine whether significant differences were present when comparing the perceived effectiveness of the inclusive education training

among special education teachers and general education teachers, male and female teachers and teachers who volunteered for inclusive placements and those who were assigned placement without volunteering. The means and correlation coefficients were examined to determine any significant differences.

Analysis of variance was used to determine whether mean scores on one or more factors differed significantly from each other, and whether the various factors interacted significantly with each other when comparing the perceived effectiveness of the training in the seven identified areas of student needs.

Research Questions

The purpose of this study was to examine the extent to which inclusive education training affected teachers' perceptions of their ability to meet the needs of fully integrated severely and moderately handicapped students in general education classrooms in the Marquette-Alger Intermediate School District.

The specific research questions included:

1. To what extent do teachers perceive inclusive education training as affecting their ability to meet the cognitive needs of severely and

moderately handicapped students in general education classrooms?

2. To what extent do teachers perceive inclusive education training as affecting their ability to meet the social needs of severely and moderately handicapped students in general education classrooms?
3. To what extent do teachers perceive inclusive education training as affecting their ability to meet the emotional needs of severely and moderately handicapped students in general education classrooms?
4. To what extent do teachers perceive inclusive education training as affecting their ability to meet the communication needs of severely and moderately handicapped students in general education classrooms?
5. To what extent do teachers perceive inclusive education training as affecting their ability to meet the motor needs of severely and moderately handicapped students in general education classrooms?

6. To what extent do teachers perceive inclusive education training as affecting their ability to meet the health care needs of severely and moderately handicapped students in general education classrooms?
7. To what extent do teachers perceive inclusive education training as affecting their ability to meet the personal care needs of severely and moderately handicapped students in general education classrooms?
8. To what extent do teachers perceive inclusive education training as encouraging classroom teachers to work collaboratively with other building professionals to meet the needs of severely and moderately handicapped students in general education classrooms?
9. Do teachers perceive inclusive education training as affecting their abilities in meeting the cognitive, social, emotional, motor, communication, health care, and personal care needs to the same extent?
10. Is there a difference in teacher perceptions about inclusive education training among elementary,

middle, and secondary teachers in their abilities to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

11. Is there a difference in teacher perceptions about inclusive education training among teachers with less than 5 years, 6-10 years, 11-20 years, or 21 years or more of teaching experience in their abilities to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

12. Is there a difference in teacher perceptions about inclusive education training among special and general education teachers in their abilities to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

13. Is there a difference in teacher perceptions about inclusive education training among general education teachers with some college courses taken

in special education in their ability to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

14. Is there a difference in teacher perceptions about inclusive education training among teachers who received the two (2) day training, the three (3) or the five (5) half-day training in their ability to meet the cognitive, social, emotional, communication, motor, health care and personal care needs of severely and moderately handicapped students in general education classes?
15. Is there a difference in teacher perceptions about inclusive education training among teachers with an inclusive education student(s) and teachers without an inclusive education student(s) in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?
16. Is there a difference in teacher perceptions about inclusive education training among teachers who received 0 staffings/consultations, 1-3 staffings-/consultations, 4-6 staffings/consultations, 7 or

more staffings/consultations following the training in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

17. Is there a difference in teacher perceptions about inclusive education training between male and female teachers in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?
18. Is there a difference in teacher perceptions about inclusive education training among teachers from the different school districts in the MAISD in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?
19. Is there a difference in teacher perceptions about inclusive education training among teachers who volunteered for student placement in their classrooms and teachers who did not volunteer to work with an inclusive education student but were assigned this responsibility anyway?

Summary

Fifty (50) out of fifty-nine (59) teachers, representing eighty-five (85) percent of the population, chose to participate in this study which examined the extent to which inclusive education training perceivably prepared teachers to meet the needs of severely and moderately handicapped students in regular education classrooms.

Teachers from the Marquette-Alger Intermediate School District area who participated in the inclusive education training workshops received and completed the Teachers' Perceptions of the Effectiveness of Training Questionnaire which measured their perceptions of inclusive education training in meeting the needs of the severely and moderately handicapped students in regular education classrooms. All responses were keyed into the computer at Northern Michigan University and the Statistical package for the Social Sciences was used to generate the statistics. Mean and standard deviation were used to measure the impact of inclusive education training in the seven student need areas. T-test and ANOVA were computed to study how different groups perceived inclusive education training.

CHAPTER IV

ANALYSIS OF THE DATA

This chapter presents the data related to the examination of the extent to which teachers in the Marquette-Alger Intermediate School District felt inclusive education training affected their abilities to meet the needs of severely and moderately handicapped students in the general education classroom. Teachers recorded their perceptions of the effectiveness of the training in meeting the seven identified areas of need for severely and moderately handicapped students which included: Cognitive, social, emotional, communication, motor, health care, and personal care needs.

Teachers' responses to the Effectiveness of Training Questionnaire provided the data on teachers' perceptions regarding inclusive education training and its impact on meeting the needs of severely and moderately handicapped students placed into general education classrooms. Demographic information was obtained on sex, age, teaching level and area, teaching experience, training session attended, number of college courses in special education, number of inclusive education students being worked with,

attitude towards inclusion, number of staffings/consultation meetings, supportive personnel worked with, and volunteered or assigned student placements.

The analyses of the data are presented in the following manner:

1. Demographic data are presented.
2. The research question is given with the data, a description, and a table.
3. The means are interpreted as follows:
 - 1.00 - 2.33 Inclusive education training with low impact on teacher preparedness.
 - 2.34 - 3.67 Inclusive education training with an average impact on teacher preparedness.
 - 3.68 - 5.00 Inclusive education training with a high impact on teacher preparedness.
4. T-tests and ANOVA are presented where two or more groups were studied.

Demographic Data

The purpose of this study was to examine the extent to which inclusive education training helped teachers to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students placed in general education classrooms. Teachers in the Marquette-Alger Intermediate School District area who completed the inclusive education training were asked to rate the extent to which they perceived the training as being effective in meeting the seven identified areas of need for the severely and moderately handicapped student population. Of the fifty-nine questionnaires mailed, fifty were returned, representing an eighty-five (85) percent return rate.

Fourteen percent (7) of the teacher respondents were male while eighty-four percent (42) were female with two percent (1) not responding to this item. Four percent (2) of the teachers were 25 years or younger, sixteen percent (8) were between the ages of 26-35 years, fifty-four percent (27) were 36-45 years of age, twenty-two percent (11) were 46-55 years of age, and four percent (2) were 56 years or older.

The majority of the teachers, sixty percent (30) taught at the elementary level, twenty-two percent (11) were middle school teachers, and eighteen percent (9) taught at the secondary level. Twenty percent (10) of the teachers had

less than 5 years of experience, ten percent (5) had 6-10 years of experience, forty-six percent (23) had 11-20 years of experience, and twenty-four percent (12) had more than 21 years of experience. The majority of the teachers were general education teachers, constituting sixty-two percent (31) of the respondent population, while special education teachers comprised thirty-eight percent (19) of the population responding.

Forty-two percent (21) of the teachers attended the 3 day workshop, twenty-eight percent (14) attended the 2 day workshop, twenty-six percent (13) completed the 5 half day workshop, and four percent (2) did not respond to this item.

Forty percent (20) of the teachers were involved in 1-3 staffings following their training. Twenty-four percent (12) had 7 or more staffings, twenty-two percent (11) had 0 staffings and fourteen percent (7) were involved in 4-6 staffings. Half of the teachers (25) felt their staffing/consultation support was inadequate. Forty percent (20) felt that they received adequate staffing support, and ten percent (5) did not respond to this question. Fifty-six percent (28) of the staffings were conducted by local school personnel, forty-six percent (23) were conducted by MAISD personnel, and the developmental disability team from Wayne State University conducted 26 percent (13) of the staffings. Many respondents had their staffing meetings facilitated by members from all three groups on different occasions.

The majority of the teachers did not work with inclusive education aides. Fifty-eight percent (29) of the respondents reported no aide, while thirty-six percent (18) reported working with an aide. Six percent (3) of the teachers did not respond to this item.

Thirty-six percent (18) of the respondents were not currently working with any inclusively placed students. Twenty-two percent (11) were working with 1 student, eighteen percent (9) were working with 4 or more inclusive education students, twelve percent (6) worked with 2 students, ten percent (5) worked with 3 inclusive education students, and two percent (1) did not answer this item.

The regular education teachers were asked to report the number of college courses they had completed in the special education area. Thirty-six percent (18) reported 0 classes, twenty percent (10) reported that they were not general education teachers, twelve percent (6) took 1 class, ten percent (5) took 2 classes, six percent (3) reported taking 3 or more special education classes, and sixteen percent (8) did not respond to this item.

Twenty percent (10) of the teachers reported that the inclusive education training changed their attitude about inclusion. Twenty-six percent (13) reported no attitude change, twenty-eight percent (14) reported a prior willingness to accept inclusive students, twenty-four percent (12) reported they were not classroom teachers, while two percent (1) did not respond to this item.

Fourteen percent (7) of the teachers volunteered to have an inclusive education student in their classroom. Forty-six percent (23) were assigned an inclusive student without volunteering, and forty percent (20) of the respondents did not answer this item.

The last demographic item asked teachers to mark the support personnel that they worked collaboratively with. Sixty percent (30) listed the building principal, forty-six percent (23) worked with the classroom teacher, forty-two percent (21) worked with a classroom aide, thirty-six percent (18) of the respondents reported working with a resource room teacher and special class teachers e.g. art, physical education, and music. Thirty-eight percent (19) worked with a speech therapist, thirty-four percent (17) worked with the guidance counselor, twenty-eight percent (14) with a consultant for the emotionally impaired, thirty percent (15) worked with a school psychologist, twenty-four percent (12) utilized the services of an integration specialist, and eighteen percent (9) worked with the Chapter I teacher. Eight percent (4) of the respondents reported that they worked with a social worker, and occupational therapist or other personnel. Four percent (2) of the teachers reported working with each of the following personnel members: Developmental reading teacher, music therapist, health care aide, and school nurse. Table 3 provides the charted data for each demographic area.

Research Questions

Research Question 1

To what extent do teachers perceive inclusive education training as affecting their ability to meet the cognitive needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the cognitive needs of severely and moderately handicapped students (Table 4), teachers perceived the training as having an average impact on identifying alternative instructional modifications and working collaboratively with other school professionals while low impact scores were obtained on the other three cognitive items. These specific items were:

5. identify alternative instructional modifications (mean = 2.56)
6. make curriculum adaptations (mean = 1.96)
7. select different materials (mean = 2.28)
8. work collaboratively with other school professionals to meet academic needs (mean = 2.56)
9. plan cognitive activities that address the functional skills needed in the school and the community (mean = 2.00)

The overall rating for cognitive skills (mean = 2.28) indicated that teachers perceived inclusive education training as having a low impact on effectively preparing

them to meet the cognitive needs of severely and moderately handicapped students in general education classroom.

Table 4 Mean Responses on the Impact of Inclusive Education Training on Meeting the Cognitive Needs of Students

Item	Mean	SD
To what extent has inclusive education training helped you to		
5. identify alternative instructional modifications	2.56	1.28
6. make curriculum adaptations	2.28	1.25
7. select different materials	1.96	1.26
8. work collaboratively with other school professionals to meet the cognitive needs of students	2.56	1.30
9. plan cognitive activities that address the functional skills needed in the school and community	2.00	1.10
Overall Mean	2.28	1.06

Pa

tr

of

ed

so

(T

av

in

pr

fo

in

in

tr

pr

no

cla

Research Question 2

To what extent do teachers perceive inclusive education training as affecting their ability to meet the social needs of severely and moderately handicapped students.

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the social needs of severely and moderately handicapped students (Table 5), teachers perceived the training as having an average impact on identifying opportunities for social interaction and working collaboratively with other professionals but perceived a low impact on effectiveness for providing instruction in social skills and altering the inappropriate social responses of handicapped students.

These specific items were:

1. identify opportunities within the classroom setting for social interaction (mean = 2.68)
2. provide social skills instruction (mean = 2.32)
3. alter the inappropriate social responses (mean = 2.12)
4. work collaboratively with other school professional to meet social needs (mean = 2.82)

The overall rating for social skills (mean 2.48) indicated that teachers perceived inclusive education training as having an average impact on effectively preparing them to meet the social needs of severely and moderately handicapped students in general education classrooms.

Table 5 Mean Responses on the Impact of Inclusive Education Training on Meeting the Social Needs of Students

Item	Mean	SD
To what extent has inclusive education training helped you to		
1. identify opportunities for social interaction	2.68	1.25
2. provide social skills instruction	2.32	1.22
3. alter inappropriate social responses	2.12	1.12
4. work collaboratively with other school professionals to meet social needs	2.82	1.29
Overall Mean	2.48	1.01

Research Question 3

To what extent do teachers perceive inclusive education training as affecting their ability to meet the emotional needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the emotional needs of severely and moderately handicapped students (Table 6), teachers perceived the training as having a low impact on all five items. These specific items were:

20. identify alternative ways to manage student behavior (mean = 1.92)
21. plan activities that decrease inappropriate behavior (mean = 1.94)
22. identify appropriate behaviors for handicapped students (mean = 2.10)
23. plan activities that reinforce and increase the number of appropriate behaviors (mean = 1.87)
24. work collaboratively with other school professionals to meet emotional needs (mean = 2.13)

The overall rating for emotional skills (mean = 2.01) indicated that teachers perceived inclusive education training as having a low impact on preparing them to meet the emotional needs of severely and moderately handicapped students in general education classrooms.

Table 6 Mean Responses on the Impact of Inclusive Education Training on Meeting the Emotional Needs of Students

Item	Mean	SD
To what extent has inclusive education training helped you to		
20. identify alternative ways to manage student behavior	1.92	1.08
21. plan activities that decrease inappropriate behaviors	1.94	1.07
22. identify appropriate behaviors for handicapped students	2.10	1.13
23. plan activities that reinforce and increase the number of appropriate behaviors	1.87	1.13
24. work collaboratively with other school professionals to meet emotional needs	2.13	1.23
Overall Mean	2.01	1.05

Research Question 4

To what extent do teachers perceive inclusive education training as affecting their ability to meet the communication needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the communication needs of severely and moderately handicapped students (Table 7), teachers perceived inclusive education training as having an average impact on working collaboratively with other school professionals and a low impact on the other five communication items. These specific items included:

10. provide communication opportunities (mean = 2.20)
11. provide instruction that increases the expressive language of students (mean = 1.92)
12. provide instruction that increases the receptive language of students (mean = 1.90)
13. identify a variety of techniques to increase language skills (mean = 1.70)
14. use augmented equipment to meet the unique communication needs (mean = 1.56)
15. work collaboratively with other school professionals to meet the communication needs of students (mean = 2.42)

The overall rating for communication skills (mean 1.96) indicated that teachers perceived inclusive education training as having a low impact on effectively preparing

them to meet the communication needs of severely and moderately handicapped students in general education classrooms.

Table 7 Mean Responses on the Impact of Inclusive Education Training on Meeting the Communication Needs of Students

Item	Mean	SD
To what extent has inclusive education training helped you to		
10. provide communication opportunities	2.20	1.17
11. provide instruction that increases the expressive language of students	1.92	1.04
12. provide instruction that increases the receptive language of students	1.90	1.04
13. identify a variety of techniques to increase language skills	1.70	1.02
14. use augmented equipment to meet unique communication needs	1.56	.86
15. work collaboratively with other professionals to meet the communication needs of students	2.42	1.16
Overall Mean	1.96	.89

Research Question 5

To what extent do teachers perceive inclusive education training as affecting their ability to meet the motor needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the motor needs of severely and moderately handicapped students (Table 8), teachers perceived the training as having a low impact on all four motor items. These specific items were:

16. identify and plan activities that increase fine motor skills (mean = 1.86)
17. plan activities that increase gross motor skills (mean = 1.76)
18. plan adapted physical education activities for nonambulatory students (mean = 1.63)
19. work collaboratively with other school professionals to meet the motor needs of students (mean = 1.84)

The overall rating for motor skills (mean = 1.78) indicated that teachers perceived inclusive education training as having a low impact on effectively preparing them to meet the motor needs of severely and moderately impaired students in general education classrooms.

Table 8 Mean Responses on the Impact of Inclusive Education Training on Meeting the Motor Needs of Students

Item	Mean	SD
To what extent has inclusive education training helped you to		
16. identify and plan fine motor activities	1.86	1.05
17. plan activities that increase gross motor skills	1.76	1.04
18. plan adapted physical education activities for nonambulatory students	1.63	1.04
19. work collaboratively with other school professionals to meet motor needs	1.84	1.12
Overall Mean	1.78	.98

Research Question 6

To what extent do teachers perceive inclusive education training as affecting their ability to meet the health care needs of severely and moderately handicapped students in general education classroom?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the health care needs of severely and moderately handicapped students (Table 9), teachers perceived the training as having a low impact in both health care items. These specific items included:

29. plan activities that develop personal hygiene skills (mean = 1.44)
30. work collaboratively with other school professionals to meet the health care needs of students (mean = 1.53)

The overall rating for health care skills (mean = 1.49) indicated that teachers perceived inclusive education training as having a low impact on effectively preparing them to meet the health care needs of severely and moderately handicapped students in general education classrooms.

Table 9 Mean Responses on the Impact of Inclusive Education Training on Meeting the Health Care Needs of Students

Item	Mean	SD
To what extent has inclusive education training helped you to		
29. plan activities that develop personal hygiene skills	1.44	1.06
30. work collaboratively with other school professionals to meet the health care needs of students	1.53	1.08
Overall Mean	1.49	1.06

Res

tr

ca

in

e

pa

s

h

T

Research Question 7

To what extent do teachers perceive inclusive education training as affecting their ability to meet the personal care needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the personal care needs of severely and moderately handicapped students (Table 10), teachers perceived the training as having a low impact on all four personal care questions. These specific items were:

25. plan activities to increase independence in dressing and undressing (mean = 1.48)
26. increase appropriate mealtime skills (mean = 1.47)
27. provide instruction and/or care to promote independent toileting skills (mean = 1.42)
28. work collaboratively with other school professionals to meet the personal care needs (mean = 1.58)

The overall rating for personal care skills (mean = 1.51) indicated that teachers perceived inclusive education training as having a low impact on effectively preparing them to meet the personal care needs of severely and moderately handicapped students in general education classrooms.

Te

1

T

t

2

Table 10 Mean Responses on the Impact of Inclusive Education Training on Meeting the Personal Care Needs of Students

Item	Mean	SD
To what extent has inclusive education training helped you to		
25. plan activities to increase independent dressing and undressing	1.48	.98
26. increase appropriate mealtime skills	1.47	1.01
27. provide instruction and/or care to promote independent toileting skills	1.42	.98
28. work collaboratively with other school professionals to meet the personal care needs of students	1.58	1.20
Overall Mean	1.51	1.01

Research Question 8

To what extent do teachers perceive inclusive education training as encouraging classroom teachers to work collaboratively with other building professionals to meet the needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teacher's ability to work collaboratively with other school professionals to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students (Table 11), teachers perceived the training as having an average impact on collaboration on the cognitive, social, and communication need items and a low impact on the emotional, motor, personal care and health care items. These specific items were:

4. work collaboratively with other school professionals to meet the social needs (mean = 2.82)
8. work collaboratively with other school professionals to meet the cognitive needs (mean = 2.56)
15. work collaboratively with other school professionals to meet the communication needs (mean = 2.42)
19. work collaboratively with other school professional to meet the motor needs (mean = 1.84)

24. work collaboratively with other school professionals to meet the emotional needs (mean = 2.13)
28. work collaboratively with other school professionals to meet the personal care needs (mean = 1.58)
30. work collaboratively with other school professionals to meet the health care needs (mean = 1.53)

The overall rating for working collaboratively with other school professionals (mean = 2.17) indicated that teachers perceived inclusive education training as having a low impact on effectively preparing them to work collaboratively with other school professionals to meet the seven identified need areas of severely and moderately handicapped students in general education classrooms.

Table 11 Mean Responses on the Impact of Inclusive Education Training on Collaboration

Item	Mean	SD
To what extent has inclusive education training helped you to		
4. work collaboratively with other professionals to meet social needs	2.82	1.29
8. work collaboratively with other professionals to meet cognitive needs	2.56	1.30
15. work collaboratively with other professionals to meet communication needs	2.42	1.16
19. work collaboratively with other professionals to meet motor needs	1.84	1.12
24. work collaboratively with other professionals to meet emotional needs	2.13	1.23
28. work collaboratively with other professionals to meet personal care needs	1.58	1.20
30. work collaboratively with other professionals to meet health care needs	1.53	1.08
Overall Mean	2.17	1.03

Research Question 9

Do teachers perceive inclusive education training as affecting their abilities in meeting the cognitive, social, emotional, motor, communication, health care, and personal care needs to the same extent?

In rating the extent of the impact of inclusive education training on meeting the cognitive, social emotional, motor, communication, health care, and personal care needs of students, (Table 12) teachers perceived inclusive education training as having an average impact (overall mean = 2.48) in meeting the social needs of severely and moderately handicapped students in the general education classroom. A low impact perception rating was recorded in the six remaining areas: Cognitive (overall mean = 2.28), emotional (overall mean = 2.01), communication (overall mean = 1.96), motor (overall mean = 1.78), health care (overall mean = 1.49), and personal care (overall mean = 1.51).

2

i

s

s

p

s

e

n

s

s

(

t

s

a

o

2

P

w

P

Research Question 10

Is there a difference in teacher perceptions about inclusive education training among elementary, middle, and secondary teachers in their abilities to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the needs of severely and moderately handicapped students in the seven identified need categories, elementary and middle school teachers showed no variation in their responses (Table 13) rating each category as having low impact on their preparedness (mean scores below 2.34) except the social category where they rated the training as having an average impact (mean = 2.39). Secondary teachers, on the other hand, rated cognitive (mean = 2.80), social (mean = 2.97), and emotional (mean = 2.47) categories in the average preparedness impact range. The remaining four categories were rated as having low impact (means below 2.34) preparedness scores.

Table 13 Overall Mean Responses on the Impact of Inclusive Education Training Among Elementary, Middle, and Secondary Teachers

Item	Elementary N = 30		Middle N = 11		Secondary N = 9	
	Mean	SD	Mean	SD	Mean	SD
Cognitive	2.15	1.11	2.20	1.09	2.80	.71
Social	2.38	1.01	2.39	1.00	2.97	.97
Emotional	1.93	.97	1.87	1.02	2.47	1.30
Motor	1.75	.93	1.73	1.13	1.94	1.06
Communication	1.94	.96	1.85	.80	2.13	.83
Personal Care	1.52	1.04	1.40	.92	1.61	1.11
Health Care	1.48	1.00	1.40	1.26	1.64	1.11

ANOVA Among Elementary, Middle, and Secondary Levels

ANOVA was performed to find the variance among the mean scores in the cognitive, social, emotional, motor, communication, personal care, and health care categories for elementary, middle, and secondary teachers (Table 14). The F ratio in each category showed no statistical significance at the .05 level, indicating that the mean score differences were due to chance rather than sample differences.

Table 14 ANOVA Among Elementary, Middle, and Secondary Teachers

Item	Source of Variation	DF	Sum of Squares	Mean Squares	F Ratio	Significance
Cognitive	Between	2	3.0365	1.5183	1.3767	.2624
	Within	47	51.8347	1.1029		
	Total	49	54.8712			
Social	Between	2	2.6065	1.3032	1.2944	.2836
	Within	47	47.3198	1.0068		
	Total	49	49.9262			
Emotional	Between	2	2.3418	1.1709	1.0723	.3504
	Within	47	51.3230	1.0920		
	Total	49	53.6648			
Motor	Between	2	.3010	.1505	.1512	.8601
	Within	47	46.7790	.9953		
	Total	49	47.0800			
Communication	Between	2	.4025	.2012	.2462	.7828
	Within	47	38.4203	.8175		
	Total	49	38.8228			
Personal Care	Between	2	.1879	.0939	.0884	.9155
	Within	42	44.6232	1.0625		
	Total	44	44.8111			
Health Care	Between	2	.2462	.1231	.1055	.9001
	Within	42	48.9982	1.1666		
	Total	44	49.2444			

Research Question 11

Is there a difference in teacher perceptions about inclusive education training among teachers with less than 5 years, 6-10 years, 11-20 years, or 21 years or more of teaching experience in their abilities to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the cognitive, social, emotional, motor, communication, personal care, and health care needs of students, little variation was recorded across the different years of experience categories (Table 15). Teachers with 5 years or less experience found the training to have a low impact (means under 2.34) in six areas, and an average impact (mean of 2.48) in the social area. Teachers in the 6-10 years of experience group and the over 21 years of experience category rated all seven areas as having a low impact (mean scores below 2.34) on their abilities to meet these needs of students based on the training they received. Teachers in the 11-20 years of experience group rated the cognitive area (mean = 2.37) and the social area (mean = 2.61) as having an average impact. The other five categories of needs were rated as having low impact for preparedness (mean scores under 2.34).

Table 15 Overall Mean Responses of the Impact of Inclusive Education Training Among Teachers with Varying Years of Experience

Item	Under 5 N = 10		6 - 10 N = 5		11 - 20 N = 23		Over 21 N = 12	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Cognitive	2.30	.83	1.92	.69	2.37	1.11	2.23	1.30
Social	2.48	.89	2.30	.89	2.61	1.02	2.33	1.20
Emotional	1.74	.71	2.04	.91	2.06	1.05	2.15	1.36
Motor	1.73	.62	1.75	.87	1.72	.91	1.96	1.42
Communication	1.68	.57	1.77	.85	2.02	.79	2.14	1.27
Personal Care	1.06	.12	1.40	.38	1.46	.99	1.95	1.44
Health Care	1.06	.18	1.40	.65	1.50	1.12	1.82	1.40

ANOVA for Years of Teaching Experience

ANOVA for years of teaching experience was performed which indicated that the F score was not significant (Table 16) in teacher perceptions regarding the effectiveness of inclusive education training in the cognitive, social, emotional, motor, communication, personal care, and health care categories. Therefore, the samples came from populations with the same mean, and the differences were attributable to sampling error. There was no difference in teachers' perceptions of inclusive education training effectiveness among teachers with less than 5 years, 6-10 years, 11-20 years, and 21 or more years of teaching experience.

Table 16 ANOVA for Years of Teaching Experience

Item	Source of Variation	DF	Sum of Squares	Mean Squares	F Ratio	Significance
Cognitive	Between	3	.8444	.2815	.2396	.8682
	Within	46	54.0268	1.1745		
	Total	49	54.8712			

Social	Between	3	.8001	.2667	.2497	.8611
	Within	46	49.1262	1.0680		
	Total	49	49.9262			

Emotional	Between	3	1.0205	.3402	.2972	.8272
	Within	46	52.6443	1.1444		
	Total	49	53.6648			

Motor	Between	3	.5065	.1688	.1668	.9182
	Within	46	46.5735	1.0125		
	Total	49	47.0800			

Communication	Between	3	1.4235	.4745	.5836	.6288
	Within	46	37.3993	.8130		
	Total	49	38.8228			

Personal Care	Between	3	3.8794	1.2931	1.2953	.2889
	Within	41	40.9317	.9983		
	Total	44	44.8111			

Health Care	Between	3	2.6893	.8964	.7895	.5068
	Within	41	46.5551	1.1355		
	Total	44	49.2444			

Research Question 12

Is there a difference in teacher perceptions about inclusive education training among special and general education teachers in their abilities to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the needs of severely and moderately handicapped students in the seven need categories, general education teachers rated all seven areas as having a low impact (mean scores below 2.34) on preparing them to meet student needs (Table 17). Special education teachers rated the cognitive (mean = 2.58) and social (mean = 2.79) need areas as having average impact scores and the five remaining categories had low impact means (means below 2.34).

Table 17 Overall Mean Responses of the Impact of Inclusive Education Training Between General and Special Education Teachers

Item	General N = 31		Special N = 19	
	Mean	SD	Mean	SD
Cognitive	2.09	.94	2.58	1.20
Social	2.30	.91	2.79	1.11
Emotional	1.92	.95	2.17	1.20
Motor	1.72	.89	1.88	1.13
Communication	1.91	.88	2.03	.92
Personal Care	1.35	.87	1.74	1.18
Health Care	1.31	.83	1.75	1.31

Two Sample t-Test

The two sample t-test performed on general and special education teachers indicated that the mean score differences were not significant at the .05 level (Table 18). Therefore, samples came from populations with the same mean, and the treatment of being in the general or special education teacher sample had no effect. There were no differences in the effectiveness of inclusive education training between general and special education teachers.

Table 18 Two Sample t-Test for General and Special Education Teachers

Item	T Value	F Value
Cognitive	-1.61	.114
Social	-1.70	.095
Emotional	- .81	.422
Motor	- .57	.572
Communication	- .43	.669
Personal Care	-1.26	.215
Health Care	-1.37	.179

Research Question 13

Is there a difference in teacher perceptions about inclusive education training among general education teachers with some college courses taken in special education in their ability to meet the cognitive, social, emotional, motor, communication, personal care, and health care needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the needs of severely and moderately handicapped students in the seven need areas, teachers with zero (0), one (1), and three (3) college courses in special education rated the training in all seven areas as having a low impact on their abilities to meet the needs of the handicapped students (Table 19). General education teachers with two (2) courses in the area of special education rated average effectiveness scores in the cognitive (mean = 2.80), and social (mean = 3.05) areas. All other responses in this category received low impact ratings. A difference in the perceived impact of the training was noted by the ten respondents who recorded that they were not general education teachers. Average impact ratings (mean scores between 2.34 - 3.67) were reported in all areas except personal care. The mean score in this area was 2.25 indicating a low impact for perceived effectiveness.

Table 19 Overall Mean Responses on the Impact of Inclusive Education Training Among General Education Teachers With Some College Course Work in Special Education

Item	Number of Special Education Courses Taken									
	0		1		2		3+		N/A	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Cognitive	1.98	1.03	2.20	.92	2.80	.51	1.73	.70	2.84	1.43
Social	2.14	.98	2.29	.84	3.05	.54	2.00	.43	3.18	1.12
Emotional	1.83	1.02	1.87	1.09	2.21	.84	1.80	.69	2.72	1.33
Motor	1.64	1.01	1.83	.93	1.65	.58	1.83	.76	2.35	1.33
Communication	1.85	.97	2.03	1.09	2.07	.51	1.50	.44	2.43	1.06
Personal Care	1.50	1.13	1.17	.41	1.19	.24	1.08	.14	2.25	1.39
Health Care	1.40	1.06	1.25	.61	1.25	.29	1.00	.00	2.35	1.53

**ANOVA Among Teachers With Zero, One, Two, Three or
More Courses in Special Education**

The analysis of variance for the number of college courses taken in special education indicated a significant difference at the .05 level in the social skills area (Table 20). Statistically significant differences were not recorded in the cognitive, emotional, motor, communication, personal care, and health care need areas.

Table 20 ANOVA Among General Education Teachers With Zero, One, Two, Three or More Courses in Special Education

Item	Source of Variation	DF	Sum of Squares	Mean Squares	F Ratio	Significance
Cognitive	Between	4	7.0573	1.7643	1.5280	.2141
	Within	37	42.7218	1.1546		
	Total	41	49.7790			
Social	Between	4	9.4249	2.3562	2.6510	.0484*
	Within	37	32.8861	.8888		
	Total	41	42.3110			
Emotional	Between	4	5.8518	1.4630	1.2550	.3050
	Within	37	43.1319	1.1657		
	Total	41	48.9837			
Motor	Between	4	3.5047	.8762	.8079	.5281
	Within	37	40.1278	1.0845		
	Total	41	43.6324			
Communication	Between	4	3.0391	.7598	.8404	.5085
	Within	37	33.4503	.9041		
	Total	41	36.4894			
Personal Care	Between	4	6.9663	1.7416	1.5779	.2033
	Within	33	36.4219	1.1037		
	Total	37	43.3882			
Health Care	Between	4	8.5132	2.1283	1.8125	.1499
	Within	33	38.7500	1.1742		
	Total	37	47.2632			

* F ratio significant at the .05 level

Research Question 14

Is there a difference in teacher perceptions about inclusive education training among teachers who received the two (2) day training, the three (3) day training, or the five (5) day training in their ability to meet the cognitive, social, emotional, motor, communication, personal care, and health care needs of severely and moderately handicapped students in general education classes?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the needs of the severely and moderately handicapped students in the seven need areas, teachers attending the two (2) day training and the five (5) day training reported average impact scores (mean between 2.34 - 3.67) in the cognitive and social categories (Table 21). Low impact scores (means under 2.34) were recorded in the other five need areas. Teachers attending the three (3) day training session reported similar perceptions with the social category having an average impact (mean = 2.38) and the other six categories being reported as having a low impact (mean under 2.34) for meeting the handicapped students' needs in regular classrooms.

Table 21 Overall Mean Responses on the Impact of Inclusive Education Training Among Teachers Attending Different Training Sessions

Item	2 Day N = 14		3 Day N = 21		5 Day N = 13	
	Mean	SD	Mean	SD	Mean	SD
Cognitive	2.36	1.29	2.16	1.06	2.51	.80
Social	2.45	1.17	2.38	.94	2.85	.91
Emotional	2.17	1.28	1.83	.85	2.22	1.14
Motor	2.13	1.34	1.68	.70	1.67	.96
Communication	2.13	1.14	1.92	.79	1.91	.83
Personal Care	1.83	1.46	1.48	.90	1.38	.84
Health Care	1.95	1.67	1.40	.80	1.35	.85

ANOVA for Training Session Attended

Analysis of variance was performed for the three training sessions that teachers attended to determine the statistical significance of the mean scores (Table 22). The F ratio in each category was not statistically significant at the .05 level. The differences recorded were due to chance not sample differences. There were no differences recorded in teacher perceptions about inclusive education training among teachers who received the two (2) day, three (3) day, or five (5) half day trainings in their abilities to meet the cognitive, social, emotional, motor, communication, personal care, and health care needs of severely and moderately handicapped students in general education classrooms.

Table 22 ANOVA Among Two, Three, and Five Day Training Sessions

Item	Source of Variation	DF	Sum of Squares	Mean Squares	F Ratio	Significance
Cognitive	Between	2	.9995	.4997	.4328	.6513
	Within	45	51.9530	1.1545		
	Total	47	52.9525			
Social	Between	2	1.8629	.9315	.9204	.4057
	Within	45	45.5420	1.0120		
	Total	47	47.4049			
Emotional	Between	2	1.5601	.7801	.6794	.5120
	Within	45	51.6664	1.1481		
	Total	47	53.2266			
Motor	Between	2	1.9953	.9976	1.0166	.3700
	Within	45	44.1597	.9813		
	Total	47	46.1549			
Communication	Between	2	.4562	.2281	.2728	.7625
	Within	45	37.6341	.8363		
	Total	47	38.0903			
Personal Care	Between	2	1.2055	.6027	.5598	.5757
	Within	40	43.0707	1.0768		
	Total	42	44.2762			
Health Care	Between	2	2.5269	1.2634	1.0935	.3449
	Within	40	46.2173	1.1554		
	Total	42	48.7442			

Research Question 15

Is there a difference in teacher perceptions about inclusive education training among teachers with an inclusive education student(s) and teachers without an inclusive education student(s) in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the needs of severely and moderately handicapped students in the seven need areas, teachers with no inclusive education students and teachers with three inclusive education students responded with low impact scores (means lower than 2.34) in all areas except social, where average impact scores (mean between 2.34 - 3.67) were recorded (Table 23). Teachers with one inclusively placed student rated all seven areas with low impact scores (means below 2.34).

Teachers in the category with two inclusive education students recorded average impact scores in the cognitive (mean = 2.53), social (mean = 2.75), and emotional (mean = 2.57) areas. The remaining four need areas were rated as having low impact scores (means lower than 2.34) for preparedness.

The highest scores were reported by teachers with four or more inclusive education students in their classrooms. Average impact scores were reported in four areas:

Cognitive (mean = 3.20), social (mean = 3.08), emotional (mean = 2.36), and communication (mean = 2.50). Low impact scores were recorded in the three remaining categories: Motor (mean = 2.31), personal care (mean = 2.08), and health care (mean = 2.17).

Table 23 Overall Mean Responses on the Impact of Inclusive Education Training Among Teachers With and Without Inclusively Placed Students

Item	Number of Inclusively Placed Students									
	0		1		2		3		4+	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Cognitive	2.04	.84	1.85	.63	2.53	1.35	2.16	1.31	3.20	1.19
Social	2.46	.89	2.02	.78	2.75	1.21	2.35	1.32	3.08	1.09
Emotional	1.86	.91	1.64	.64	2.57	.92	2.28	1.51	2.36	1.43
Motor	1.71	.77	1.50	.55	1.92	.82	1.70	1.43	2.31	1.51
Communication	1.84	.71	1.61	.44	2.14	.99	1.93	1.19	2.50	1.29
Personal Care	1.17	.35	1.25	.63	1.85	1.32	1.70	1.29	2.08	1.57
Health Care	1.23	.46	1.10	.32	1.80	1.30	1.60	1.34	2.17	1.73

ANOVA for Number of Inclusive Education Students Worked With

The analysis of variance for the number of inclusive education students teachers worked with indicated that the F score was significant at the .05 level in the cognitive need area (Table 24). The differences were not significant at the .05 level in the other six need areas for teachers who worked with varying numbers of inclusively placed students.

Table 24 ANOVA for Number of Inclusive Education Students Teachers Worked With

Item	Source of Variation	DF	Sum of Squares	Mean Squares	F Ratio	Significance
Cognitive	Between	4	11.0629	2.7657	2.7926	.0376*
	Within	44	43.5771	.9904		
	Total	48	54.6400			

Social	Between	4	6.0869	1.5217	1.5468	.2054
	Within	44	43.2881	.9838		
	Total	48	49.3750			

Emotional	Between	4	5.1715	1.2929	1.1897	.3286
	Within	44	47.8161	1.0867		
	Total	48	52.9876			

Motor	Between	4	3.5724	.8931	.9163	.4630
	Within	44	42.8868	.9747		
	Total	48	46.4592			

Communication	Between	4	4.4452	1.1113	1.4224	.2424
	Within	44	34.3756	.7813		
	Total	48	38.8209			

Personal Care	Between	4	6.1610	1.5402	1.5569	.2050
	Within	39	38.5833	.9893		
	Total	43	44.7443			

Health Care	Between	4	7.1667	1.7917	1.6703	.1764
	Within	39	41.8333	1.0726		
	Total	43	49.0000			

* F ratio significant at the .05 level						

Research Question 16

Is there a difference in teacher perceptions about inclusive education training among teachers who received 0 staffings/consultations, 1-3 staffings/consultations, 4-6 staffings/consultations, 7 or more staffings/consultations following the training in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact the number of staffings teachers participated in had on their perceptions of the effectiveness of the inclusive education training in the seven need areas, teachers with zero staffing or consultation meetings rated the cognitive (mean = 2.40) and social (mean = 2.82) need areas as having an average impact on their effectiveness in meeting these needs (Table 25). Low impact scores (means below 2.34) were recorded for the remaining five need areas.

Teachers receiving 1-3 and 4-6 staffing/consultation meetings regarding their inclusive education student(s) rated all seven areas as having low impact (means below 2.34) in preparing them to meet the students' needs.

Teachers participating in seven (7) or more staffings rated the cognitive (mean = 2.50), social (mean = 2.96), and emotional (mean = 2.45) areas as having an average impact on

preparing them to meet their students' needs. These teachers rated the motor, communication, personal care, and health care categories as having a low impact (mean scores below 2.34) for preparedness.

Table 25 Overall Mean Responses on the Impact of Inclusive Education Training Among Teachers With Varying Staffing/Consultation Meetings

Item	Number of Staffing/Consultation Meetings							
	0		1-3		4-6		7+	
	N = 11		N = 20		N = 7		N = 12	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Cognitive	2.40	1.18	2.09	.91	2.23	1.17	2.50	1.19
Social	2.82	1.08	2.16	.79	2.07	.95	2.96	1.11
Emotional	2.15	1.24	1.78	.91	1.72	.81	2.45	1.15
Motor	2.02	1.23	1.68	.92	1.46	.71	1.92	1.00
Communication	2.14	1.15	1.83	.74	1.79	.98	2.10	.88
Personal Care	1.50	1.32	1.38	.80	1.42	.90	1.77	1.19
Health Care	1.50	1.32	1.37	.97	1.42	.80	1.73	1.19

ANOVA for Number of Staffing/Consultation Meetings

The analysis of variance for the number of staffing-/consultation meetings a teacher participated in indicated that these means were not statistically different (Table 26). Participating in staffing/consultation meetings on inclusive education students did not affect the teachers' perceptions of the effectiveness of the inclusive education training.

Table 26 ANOVA for Number of Staffing/Consultation Meetings Teachers Participated In

Item	Source of Variation	DF	Sum of Squares	Mean Squares	F Ratio	Significance
Cognitive	Between	3	1.4789	.4930	.4247	.7362
	Within	46	53.3923	1.1607		
	Total	49	54.8712			
Social	Between	3	7.1871	2.3957	2.5785	.0650
	Within	46	42.7392	.9291		
	Total	49	49.9263			
Emotional	Between	3	4.1248	1.3749	1.2767	.2935
	Within	46	49.5400	1.0770		
	Total	49	53.6648			
Motor	Between	3	1.7904	.5968	.6062	.6144
	Within	46	45.2896	.9846		
	Total	49	47.0800			
Communication	Between	3	1.1011	.3670	.4476	.7202
	Within	46	37.7217	.8200		
	Total	49	38.8228			
Personal Care	Between	3	1.1249	.3750	.3519	.7880
	Within	41	43.6862	1.0655		
	Total	44	44.8111			
Health Care	Between	3	.9332	.3111	.2640	.8509
	Within	41	48.3112	1.1783		
	Total	44	49.2444			

Research Question 17

Is there a difference in teacher perceptions about inclusive education training between male and female teachers in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on teachers' abilities to meet the needs of severely and moderately handicapped students in general education classrooms, male teachers rated all seven areas as having a low impact (mean scores below 2.34) for preparing them to meet these student needs (Table 27). Female teachers perceived the training as having an average effectiveness impact in meeting the social needs (mean = 2.57) of their students and a low impact for preparedness in the other six areas.

Table 27 Overall Mean Responses on the Impact of Inclusive Education Training Between Male and Female Teachers

Item	Males N = 7		Females N = 42	
	Mean	SD	Mean	SD
Cognitive	2.00	.92	2.31	1.10
Social	2.00	.72	2.57	1.05
Emotional	1.63	.86	2.06	1.08
Motor	1.36	.75	1.82	1.00
Communication	1.76	.77	1.96	.91
Personal Care	1.08	.13	1.56	1.08
Health Care	1.08	.20	1.53	1.13

Two Sample t-Test

The two sample t-test performed on male and female teachers indicated that the mean scores were not significantly different at the .05 level (Table 28). Therefore, samples came from populations with the same mean, and the treatment of being in the male or female teacher sample had no effect. There were no differences in the perceived effectiveness of inclusive education training between male and female teachers.

Table 28 Two Sample t-Test for Male and Female Teachers

Item	T Value	F Value
Cognitive	- .72	.477
Social	-1.39	.172
Emotional	-1.01	.319
Motor	-1.17	.247
Communication	- .56	.581
Personal Care	-1.07	.293
Health Care	- .95	.347

Research Question 18

Is there a difference in teacher perceptions about inclusive education training among teachers from the different school districts in the Marquette-Alger Intermediate School District region in their abilities to meet the needs of severely and moderately handicapped students in general education classrooms?

In rating the extent of the impact of inclusive education training on the teachers' abilities to meet the needs of severely and moderately handicapped students in the seven need categories, variability did occur among the eight districts surveyed (Table 29). The participating teachers in the Superior Central School District perceived the inclusive education training to be highly effective (mean scores above 3.67) in all seven need areas.

The Negaunee, Gwinn, and Munising School Districts' teachers perceived the training to have low effectiveness in all seven need areas (mean scores below 2.34) in preparing them to meet the cognitive, social, emotional, motor, communication, personal care, and health care needs of severely and moderately handicapped students in general education classrooms.

The NICE School District's teachers rated the training in the cognitive (mean = 2.63), social (mean = 2.96), emotional (mean = 2.52), and communication (mean = 2.40) areas as having an average impact on their abilities to meet

these student needs. Low impact scores (means below 2.34) were recorded in the motor, personal care, and health care areas.

The Marquette and Republic/Michigamme School Districts' teachers rated the cognitive and social areas as having an average preparedness impact (mean scores between 2.34 - 3.67). The remaining five areas for both districts were rated with low impact scores (means below 2.34).

The teachers in the Ishpeming School District rated the social area (mean = 2.75) as having an average impact on their abilities to meet student needs and the six remaining areas received low impact scores (means below 2.34).

Table 29 Overall Mean Responses on the Impact of Inclusive Education Training In Each School District Represented

Item	Ishpeming N = 8		Negaunee N = 10		NICE N = 7		S. Central N = 3		Marquette N = 8		Gwinn N = 7		Republic N = 2		Munising N = 5	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Cognitive	2.33	.68	1.70	.76	2.63	.85	4.47	.50	2.50	1.26	1.69	.85	2.60	.85	1.88	.86
Social	2.75	.76	1.80	.37	2.96	1.04	4.17	.72	2.72	1.08	1.82	1.02	3.00	1.06	2.10	.63
Emotional	2.30	.97	1.34	.47	2.52	1.29	4.00	1.00	1.96	.78	1.51	.55	2.00	1.41	1.80	1.01
Motor	1.71	.62	1.18	.37	2.21	1.01	4.17	1.04	1.56	.73	1.50	.60	1.75	1.06	1.80	1.09
Communication	2.13	.67	1.35	.49	2.40	.79	4.00	.79	2.00	.58	1.43	.46	1.50	.47	1.90	1.02
Personal Care	1.06	.18	1.23	.63	1.96	1.11	4.08	.88	1.54	1.21	1.11	.13	1.00	.00	1.25	.50
Health Care	1.00	.00	1.10	.32	2.00	1.05	4.33	1.15	1.58	1.20	1.00	.00	1.00	.00	1.38	.75

ANOVA for Each School District Represented

Analysis of variance was performed for the eight school districts that participated in this study. Statistical significance was indicated in all seven areas (Table 30). Therefore, samples came from populations with different means, and the district a teacher taught in made a difference in the teacher's perceptions of inclusive education training.

Table 30 ANOVA for Each School District Represented

Item	Source of Variation	DF	Sum of Squares	Mean Squares	F Ratio	Significance
Cognitive	Between	7	22.4387	3.2055	4.1511	.0015**
	Within	42	32.4325	.7722		
	Total	49	54.8712			
Social	Between	7	20.1370	2.8767	4.0559	.0018**
	Within	42	29.7892	.7093		
	Total	49	49.9262			
Emotional	Between	7	20.8512	2.9787	3.8127	.0027**
	Within	42	32.8136	.7813		
	Total	49	53.6648			
Motor	Between	7	23.0301	3.2900	5.7456	.0001***
	Within	42	24.0499	.5726		
	Total	49	47.0800			
Communication	Between	7	20.2387	2.8912	6.5342	.0000***
	Within	42	18.5841	.4425		
	Total	49	38.8228			
Personal Care	Between	7	25.1581	3.5940	6.7663	.0000***
	Within	37	19.6530	.5312		
	Total	44	44.8111			
Health Care	Between	7	31.2819	4.4688	9.2051	.0000***
	Within	37	17.9625	.4855		
	Total	44	49.2444			
F ratio significant at the .01 level** and .001 level***						

Research Question 19

Is there a difference in teacher perceptions about inclusive education training between teachers who volunteered for student placement in their classrooms and teachers who did not volunteer to work with inclusive education students but were assigned this responsibility anyway?

In rating the extent of the impact of inclusive education training between teachers who volunteered for inclusive education student placement(s) and those who were assigned a student(s) without volunteering, the teachers who volunteered for these placements rated the training as having an average impact in the cognitive (mean = 2.77), social (mean = 2.89), emotional (mean = 2.84), motor (mean = 2.36), and communication (mean = 2.48) areas (Table 31). Low impact scores were recorded for the personal care (mean = 2.36), and health care (mean = 2.33) areas.

Teachers who were assigned student placement without volunteering rated the impact of the training as low in all seven areas (mean scores below 2.34).

Table 31 Overall Mean Responses on the Impact of Inclusive Education Training Between Teachers Who Volunteered or Were Assigned Inclusive Student Placement(s)

Item	Volunteered N = 7		Assigned N = 23	
	Mean	SD	Mean	SD
Cognitive	2.77	1.48	2.04	.85
Social	2.89	1.41	2.22	.82
Emotional	2.84	1.47	1.64	.73
Motor	2.36	1.70	1.43	.51
Communication	2.48	1.31	1.67	.64
Personal Care	2.29	1.75	1.19	.49
Health Care	2.33	2.07	1.16	.32

Two Sample t-Test for Volunteered or Assigned Placement(s)

The two sample t-test performed on teachers who volunteered for inclusive education student placements in their classrooms and those who were assigned students without volunteering indicated significant differences in the emotional, motor, communication, personal care, and health care areas (Table 32). This indicated that samples came from populations with different means, and the treatment of being in the volunteer or assigned sample had an effect on the teachers' perceptions of the effectiveness of the training.

Table 32 Two Sample t-Test for Volunteered or Assigned
Inclusive Education Student Placement

Item	T Value	F Value
Cognitive	1.66	.109
Social	1.61	.119
Emotional	2.94	.006 ^{**}
Motor	2.36	.025 [*]
Communication	2.25	.032 [*]
Personal Care	2.70	.012 ^{**}
Health Care	2.68	.013 ^{**}

F value significant at the .05 level^{*} and .01 level^{**}

CHAPTER V

SUMMARY, FINDINGS, RECOMMENDATIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

This chapter includes a summary of the study, a discussion of the findings including their implications, recommendations, and suggestions for further research.

Summary

The purpose of this study was to examine the extent to which inclusive education training prepared teachers to effectively meet the cognitive, social, emotional, motor, communication, personal care, and health care needs of severely and moderately handicapped students placed in general education classrooms, as perceived by the teachers in the Marquette-Alger Intermediate School District (MAISD) area who participated in the inclusive education training workshops. This was measured by the Effectiveness of Training Questionnaire which was developed based on LeRoy's "Michigan Inclusive Education Project Evaluation Model" (1991) and "The Effect of Classroom Integration on Teachers and Student Attitudes, Behaviors, and Performance in Saline

Area Schools," (June 1990); the Program Effectiveness Review: Quality Standards and Criteria for Programs Serving Students with Handicaps (Burke, 1987); "Survey of Organizations 2000" by Rensis Likert Associates, Inc. (1988); and teacher observations and interviews.

The literature was reviewed to include the historical and legal perspectives of educating students with severe and moderate disabilities, as well as a review of the literature on inclusive education.

Design of the Study

The population consisted of general and special education teachers from eight school districts located in the Marquette-Alger Intermediate School District region who attended an inclusive education training workshop during 1990. These fifty-nine teachers received the Effectiveness of Training Questionnaire and fifty, comprising an eighty-five percent return rate, chose to complete it. The questionnaire was designed to measure teachers' perceptions about the inclusive education training and how effective it was in preparing them to meet the cognitive, social, emotional, motor, communication, personal care, and health care needs of severely and moderately handicapped students placed in regular education classrooms.

The Statistical Package for Social Sciences (SPSS) was used to compute the mean and standard deviation for the teachers' responses. Two sample t-tests and analysis of variance (ANOVA) were computed to examine how different groups perceived inclusive education training.

Findings

Research Question 1

To what extent do teachers perceive inclusive education training as affecting their ability to meet the cognitive needs of severely and moderately handicapped students in general education classrooms?

Teachers perceived inclusive education training as having a low impact on their ability to meet the cognitive needs of severely and moderately handicapped students in general education classrooms.

Discussion:

Teachers perceived that their training provided average preparation for identifying the alternative instructional modifications that would be necessary to effectively instruct children with severe and/or moderate disabilities

in their classrooms. They also indicated average preparedness to work collaboratively with other school professionals to meet the cognitive needs of these students.

The data showed, however, that the teachers rated selecting different materials, actually making curriculum adaptations, and planning activities to prepare handicapped students to effectively live in the school and the community settings as perceived areas of low preparation. A factor listed in the comment section of the questionnaire by many teachers relating to these low preparedness scores was the unavailability of release time to plan and follow through with the adaptations necessary for successful cognitive experiences. The training may be adequate in the cognitive area as indicated by teachers average ratings in their ability to identify the alternative cognitive teaching strategies and to work cooperatively with other school professionals, but without a format for accommodating the increased time demands needed to adjust the curriculum to meet the special cognitive needs of handicapped children teachers did not perceive themselves as being adequately prepared to meet these needs.

Research Question 2

To what extent do teachers perceive inclusive education training as affecting their ability to meet the social needs

of severely and moderately handicapped students in general education classrooms?

Teachers perceived inclusive education training as having an average impact on effectively preparing them to meet the social needs of severely and moderately handicapped students in general education classrooms.

Discussion:

The social needs area included the teachers' abilities to identify opportunities for social interaction, provide social skills instruction, alter inappropriate social responses, and work collaboratively with other school professionals to meet social needs. Public school classrooms lend themselves to social interaction. Students communicate and interact in numerous ways throughout the day. Opportunities for communication, play, and social skill development occur naturally in this environment.

Teachers indicated an average perception of preparedness to meet the social needs of handicapped students in regular education classrooms in all areas except the ability to alter inappropriate social responses. This area is addressed more thoroughly in the emotional needs section of the findings. In addition to the naturally occurring social interactions, many schools have developed a special support system referred to as "Circle of Friends" (Mackan and Cormier, 1988). Planned activities designed to

include the handicapped child and his/her nonhandicapped peers occur frequently to further meet the social needs of the handicapped children. Teachers indicated by their responses that they felt most prepared to meet the social needs of handicapped children in regular education classrooms.

Research Question 3

To what extent do teachers perceive inclusive education training as affecting their ability to meet the emotional needs of severely and moderately handicapped students in general education classrooms?

Teachers perceived inclusive education training as having a low impact on their ability to meet the emotional needs of severely and moderately handicapped students in general education classrooms.

Discussion:

The data showed that teachers perceived a low preparedness to identify alternative ways to manage student behaviors, plan activities that decreased inappropriate behaviors, identify behaviors that were appropriate for severely and moderately handicapped students, plan activities that reinforced and increased the number of

appropriate behaviors, and work collaboratively with other school professionals to meet the emotional needs of handicapped students.

Only fourteen teachers had worked with a consultant for the emotionally impaired. This remains an area of concern for teachers who are working with the severely handicapped students in general education classrooms. The behavior problem student is disruptive and it can take one-on-one supervision to manage this behavior. Teachers indicated that they lacked the training to control this behavior and that in many cases they lacked the support of a classroom aide.

Research Question 4

To what extent do teachers perceive inclusive education training as affecting their ability to meet the communication needs of severely and moderately handicapped students in general education classrooms?

Teachers perceived inclusive education training as having a low impact on their ability to meet the communication needs of severely and moderately handicapped students in general education classrooms.

Discussion:

Although many opportunities exist in a regular school classroom for communication, students who are nonverbal can become frustrated when they cannot express their wants and needs to others. Teachers did not perceive themselves as being prepared to provide communication opportunities within the classroom setting, provide instruction that increased the receptive and expressive language of students, identify a variety of techniques designed to increase language skills, use augmented equipment to meet the unique communication needs of students (e.g. picture boards, voice synthesizers, computerized language programs, and/or sign language).

The data indicated that although teachers did not feel prepared to meet the communication needs of their inclusively placed students by themselves they perceived themselves as having an average ability to work with other school professionals to meet the communication needs of these students. Access to the services of a speech and language therapist in the school setting may have contributed to the increased rating in the collaboration area. Thirty-eight percent of the teachers reported that they currently worked with a speech therapist to jointly determine communication goals that meet the needs of the severely and moderately handicapped students in their classrooms.

Research Question 5

To what extent do teachers perceive inclusive education training as affecting their ability to meet the motor needs of severely and moderately handicapped students in general education classrooms?

Teachers perceived inclusive education training as having a low impact on their ability to meet the motor needs of severely and moderately handicapped students in general education classrooms.

Discussion:

The motor needs area included a teacher's ability to identify and plan fine motor activities, plan activities to increase gross motor skills, plan adapted physical education activities for nonambulatory students, and to work collaboratively with other school professionals to meet the motor needs of inclusively placed students. The teachers in this study perceived themselves as having low ability to meet these needs in all areas. In addition, only one teacher reported working with a physical therapist, four worked with occupational therapists, and eighteen teachers worked with a physical education teacher. The physical education teachers who participated in this study all

indicated that they did not perceive themselves as being prepared to work with the handicapped students. The necessary training must be provided to classroom teachers and to the physical education teachers that are responsible for the motor activities of these children.

As reported by Brown et. al (1989), teachers do not feel comfortable working with special needs children when their goals and activities differ from those of the majority of their students. Teachers perceived the inclusive education training as doing little to prepare them to effectively meet the motor needs of severely and moderately handicapped students in their classrooms.

Research Question 6

To what extent do teachers perceive inclusive education training as affecting their ability to meet the health care needs of severely and moderately handicapped students in general education classrooms?

Teachers perceived inclusive education training as having a low impact on their ability to meet the health care needs of severely and moderately handicapped students in general education classrooms.

Discussion:

Teachers reported the lowest overall mean score in this area (1.49). They perceived themselves as having a low ability to plan activities that developed personal hygiene skills, or to work collaboratively with other school professionals to meet these needs. Only two teachers surveyed reported that they worked with a school nurse to meet the health care needs of the severely and moderately handicapped students in their classrooms.

Medically fragile students with special health care needs present a great challenge to classroom teachers. Students needing feeding tubes, or those exhibiting eating and choking problems, as well as students with colostomies need additional care and continual supervision. Some students have seizure disorders and need medication throughout the day. Teachers do not feel trained to deal with these special needs while maintaining instruction and supervision for twenty-five other students. School nurses and health care aides have been employed in some districts (two teachers reported working with a health care aide) but the teachers continue to feel the least prepared to meet the health care needs that are often medically related.

Research Question 7

To what extent do teachers perceive inclusive education training as affecting their ability to meet the personal care needs of severely and moderately handicapped students in general education classrooms?

Teachers perceived inclusive education training as having a low impact on effectively preparing them to meet the personal care needs of severely and moderately handicapped students in general education classrooms.

Discussion:

The personal care needs of students included the teachers' abilities to plan activities to increase independent dressing and undressing skills, increase appropriate mealtime skills including self-feeding, provide instruction and/or care to promote independent toileting skills, and the ability to work collaboratively with other school professionals to meet the personal care needs of students. Teachers perceived themselves as having low preparedness to meet these needs following the inclusive education training.

The trend in this intermediate school district is to enroll the younger children with severe and moderate disabilities into the public school programs when they reach kindergarten age. As a result of their early entry into the

public schools and their lowered functional abilities, their personal care needs can be substantial. Classroom aides are instrumental in providing assistance in the personal care areas. Twenty-one teachers, representing forty-two percent of the sample population, reported working with a classroom aide. They did not report that they felt adequately prepared to train the aides to work in this area. More training is indicated by the low scores reported.

Research Question 8

To what extent do teachers perceive inclusive education training as encouraging classroom teachers to work collaboratively with other building professionals to meet the needs of severely and moderately handicapped students in general education classrooms?

Teachers perceived inclusive education training as having an overall low impact on effectively preparing them to work collaboratively with other school professionals to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students in general education classrooms.

Discussion:

Despite their low preparedness ratings, teachers expressed in the comments section of the questionnaire, a willingness to work collaboratively with other school professionals to promote successful programs for special needs students in their classrooms. Finding available time to plan with other professionals was the main obstacle reported in this area. Teachers indicated average ability scores in the social, cognitive, and communication areas for collaborative planning. Low ability scores were recorded in the motor, emotional, personal care, and health care need areas. As the disparity between the needs of handicapped students and the general education students widened, teachers felt less prepared to meet the differing needs of the handicapped population.

The inclusive education training did not provide a satisfactory method to resolve the time constraints of planning within the existing parameters of the scheduled workday and low preparedness scores were indicated in the collaboration area because of this.

Research Question 9

Do teachers perceive inclusive education training as affecting their abilities in meeting the cognitive, social,

emotional, motor, communication, health care, and personal care needs to the same extent?

Teachers did not perceive inclusive education training as having the same affect in preparing them to meet the needs of severely and moderately handicapped students in the seven identified areas in the general education classrooms. The training was perceived to have an average impact in the social area and low impact in the remaining six categories.

Discussion:

Public school facilities provide many social opportunities for their students throughout the day and academic year. Severely and moderately handicapped children reap extensive benefits from the exposure to "normal" activity in the classroom setting (Brinker, 1985). Parents are requesting more inclusive placements (Vesey, 1986) because of the positive social developments and relationships they witness for their children. Teachers did perceive themselves as having average preparedness and ability to meet the social needs of the handicapped students in their classrooms. This ability may be due to the nature of the classroom setting, however, and not the effectiveness of the training.

Teachers rated themselves as having low preparedness ability to meet the cognitive, emotional, communication, motor, personal care, and health care needs of their

handicapped students following the inclusive education training workshops. Teachers indicated by their low responses that more training is essential to effectively meet the additional needs, those other than social, of the severely and moderately handicapped students in general education classrooms.

Research Question 10

Is there a difference in teacher perceptions about inclusive education training among elementary, middle, and secondary teachers in their abilities to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

Minor differences in the ratings of their abilities to meet the cognitive, social, emotional, motor, communication, personal care, and health care needs of their handicapped students were reported by elementary, middle, and secondary teachers. These differences were not significant, however, when the variances were analyzed. No statistical differences existed among the three groups in their perception of the inclusive education training.

Discussion:

The secondary teachers in this study reported three areas of average preparation for meeting the special needs of severely and moderately handicapped students (cognitive, social, and emotional). The middle and elementary teachers perceived themselves as having average preparation in the social area only. Analysis of the variance found the differences to be statistically insignificant, resulting from chance and not true differences in the sample population.

It is interesting to note these positive differences at the secondary level as few secondary teachers participated in the inclusive education training (nine teachers). The positive scores may indicate that students fit in better as they grow within the school system. The degree of the handicapping condition of the secondary students may have been a contributing factor in the differences in the scores. This area will need additional study. A longitudinal review will need to be conducted as students spend consecutive years in the public school classrooms.

Research Question 11

Is there a difference in teacher perceptions about inclusive education training among teachers with less than 5

years, 6-10 years, 11-20 years, or 21 years or more of teaching experience in their abilities to meet the cognitive, social, emotional, communication, motor, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

There was no difference in teachers' perceptions of inclusive education training effectiveness among the teachers with less than 5 years, 6-10 years, 11-20 years, and 21 or more years of teaching experience. Teachers in all four categories reported overall mean scores in the low impact range. Analysis of variance indicated that the means were not statistically significant.

Discussion:

Teachers with varying years of experience rated each category similarly when indicating the degree of effectiveness for the training. The social area was determined to be in the average effectiveness range for teachers with less than 5 years of experience and 11-20 years of experience. An average effectiveness score was also recorded in the cognitive area by the 11-20 years of experience respondents. These differences were not found to be statistically significant when the variances were analyzed.

This indicated that regardless of the number of years of teaching experience the respondents had working with

general education students, this training was perceived to have low effectiveness in preparing them to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students now being placed in their regular education classrooms. Years of experience did not make teaching special needs children easier for these respondents and was not a factor in the perceived training effectiveness.

Research Question 12

Is there a difference in teacher perceptions about inclusive education training among special and general education teachers in their abilities to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students in general education classrooms?

General education teachers rated all seven areas as having a low impact on preparing them to meet the students' needs. Special education teachers rated the cognitive and social need areas as having average impact scores and the five remaining categories had low impact means. The two sample t-test performed on general and special education teachers indicated that the mean scores were not significant in any of the seven categories.

Discussion:

Special education teachers are knowledgeable regarding the individualized needs of the handicapped population. They rated the overall effectiveness of this training as low in preparing them to meet the needs of the severely and moderately handicapped students placed in general education classrooms. Special educators reported in the comment section of the questionnaire that they felt adequately prepared to meet the needs of the severely and moderately handicapped students in most of the seven identified areas, however, their ability to meet these needs did not result from the inclusive education training that they received. Many of the special education teachers indicated that they received the necessary training during their pre-service college training and not from the inclusive education training workshops.

Research question 13

Is there a difference in teacher perceptions about inclusive education training among general education teachers with some college courses taken in special education in their ability to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of severely and moderately handicapped students

in general education classrooms?

Teachers with zero (0), one (1), and three (3) or more college courses in special education rated the training in all seven areas as having a low impact on their abilities to meet the needs of handicapped students. Teachers with two (2) special education courses recorded average effectiveness scores in the cognitive and social areas. These differences were substantial enough to indicate statistical significance in the social area. The analysis of variance for the number of college courses taken in the other six areas was not significant.

Discussion:

The findings did not indicate that teachers with college course work in the area of special education perceived the training to be more effective. College course work may better prepare teachers to meet the needs of their inclusively placed students but the respondents in this study indicated that the training currently being provided by the Developmental Disabilities Institute does not meet their needs. General education teachers with little or no background in special education, as well as teachers with majors in special education, found the current training to be of little help in preparing them to meet the needs of their students.

Research Question 14

Is there a difference in teacher perceptions about inclusive education training among teachers who received the two (2) day training, the three (3) or the five (5) day training in their ability to meet the cognitive, social, emotional, communication, motor, health care and personal care needs of severely and moderately handicapped students in general education classes?

Teachers attending the two day, three day, and five day training sessions perceived the inclusive education training as having a low impact in most areas. The cognitive and social areas were rated as having an average impact for teachers receiving the two and five day training. Teachers in the three day training session rated the social area as the only average impact area. The six other areas were perceived as having low effectiveness for this group. Analysis of variance performed on the different training sessions indicated that the differences were not statistically significant. The training session attended did not have impact on the perceived effectiveness of the training.

Discussion:

The participants in the three different training sessions all perceived inclusive education training as having a low impact on their ability to meet the needs of their handicapped students in regular education classrooms. Analysis of variance on the workshop attended indicated no statistical differences in the seven need areas among the three groups. Looking at these results in a practical manner, there would be no justification for teachers to receive training longer than the two day session. The length of the training session attended did not produce any differences in the teachers' perceptions of the inclusive education training effectiveness.

Research Question 15

Is there a difference in teacher perceptions about inclusive education training among teachers with an inclusive education student(s) and teachers without an inclusive education student(s) in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

The number of inclusive education students that a teacher worked with had little effect on their perceptions about the inclusive education training. Teachers with one

inclusive education student rated the training as having a low impact in all seven need areas. Teachers with no inclusive education students and those with three inclusive education students rated the training similarly with only the social area being in the average range and the other six areas received low ratings. Teachers with two students and those with four or more students rated the training in the average range for the cognitive, social, and emotional areas. The communication area was also rated as having average effectiveness for the group with four or more inclusively placed students.

The mean differences were analyzed using the analysis of variance measure. The mean difference in the cognitive area was the only statistically significant score. No differences were indicated in the other six areas.

Discussion:

Although teachers with four or more inclusive education students rated the training as having average effectiveness for preparing them to meet the cognitive, social, emotional, and communication needs of severely and moderately handicapped students, analysis of variance measures indicated that these differences were significant for the cognitive area only. Teachers with additional handicapped students may feel better prepared to meet the needs of the handicapped population because of their classroom

experiences, but having additional special needs students and experience did not change their perceptions of the effectiveness of the inclusive education training that they received.

It is also interesting to note that the group of respondents with four or more inclusive education students were employed by the Superior Central and NICE school districts. Teachers from both of these districts rated the overall training as being more effective than did their colleagues in neighboring school districts. The number of inclusive education students may have influenced the ratings or the district of employment may have been the influencing factor. More investigation is warranted in this area. This study did not find a positive relationship between the number of inclusive education students in a classroom and the effectiveness of the training.

Research Question 16

Is there a difference in teacher perceptions about inclusive education training among teachers who received 0 staffings/consultations, 1-3 staffings/consultations, weekly staffings/consultations, more than weekly staffings/consultations following the training in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

The data indicated that no significant differences existed among the teachers receiving 0 staffings/consultations, 1-3 staffings/consultations, 4-6 staffings/consultations, or 7 or more staffings/consultations.

Teachers receiving 1-3 and 4-6 staffings rated the effectiveness of the training as low in all seven areas. Teachers who had not participated in any staffings/consultations rated the training as having an average impact on preparing them to meet the cognitive and social needs of their students, and a low impact in the remaining five categories. Teachers with 7 or more staffings/consultations rated the cognitive, social, and emotional areas in the average range.

The analysis of variance (ANOVA) for the number of staffings/consultation meetings a teacher participated in indicated that these means were not statistically different. Participating in staffing/consultation meetings on inclusive education students did not affect the teachers' perceptions of the effectiveness of the inclusive education training.

Discussion:

The data did not support a positive relationship between the number of staffing/consultation meetings a teacher was involved in and the teachers' perception about the effectiveness of the training. Forty percent of the

teachers indicated that the number of staffings they participated in was adequate to meet their needs (regardless of the number), and fifty percent indicated that the number of staffing/consultation meetings was not adequate to meet their needs.

This implied that the teachers valued the staffings. Half of the teachers responded that additional staffings were needed. However, the number of staffings had little influence on the teachers' perceptions of the effectiveness of the training. The staffing/consultation meetings appeared to be valued by the teachers and necessary for successful student placements. Collaboration was encouraged in the inclusive education training sessions by LeRoy (1990) when she stated, " To be successful, inclusive education demands that teams of educators and families share the responsibility for educating students with unique and challenging educational needs. To develop this shared responsibility, an atmosphere of collaboration must be cultivated." The reported number of professionals working together suggested that a system-wide approach was preferred by teachers in meeting the needs of the handicapped students. The major obstacle in the staffing/consultation area was the lack of available release time for multiple professionals to meet and cooperatively plan activities for students.

Research Question 17

Is there a difference in teacher perceptions about inclusive education training between male and female teachers in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

Male teachers rated all seven areas as having a low effectiveness impact for preparing them to meet the needs of their handicapped students. Female teachers perceived the training as having an average effectiveness impact in the social skills area and a low impact in the six remaining categories. The two sample t-test indicated that the differences in the social area means were not significant. Sex was not a factor in the teachers' perceptions of the effectiveness of the training.

Discussion:

Although fewer males (seven) participated in the inclusive education training, their responses were similar to those of the female teachers. The low number of male teachers receiving the training and therefore participating in this study, could be related to the depressed numbers of male teachers in the elementary grades nationwide. Sixty percent of the respondents in this study indicated that they taught at the elementary level.

Most of the inclusive education placements were reported to be involuntary which indicated that building principals made student placements in classrooms with female teachers. The perceived effectiveness of this training was not influenced by sex in this study.

Research Question 18

Is there a difference in teacher perceptions about inclusive education training among teachers from the different school districts in the MAISD in their ability to meet the needs of severely and moderately handicapped students in general education classrooms?

Notable variability was evident among the eight districts represented in this study. The teachers in the Superior Central School District perceived the inclusive education training to be highly effective in all seven need areas. While teachers from the Negaunee, Gwinn, and Munising school districts perceived the inclusive education training to have low effectiveness in all seven areas. The NICE School District's teachers rated the training in the cognitive, social, emotional and communication areas in the average range with the remaining areas receiving low ratings. The Marquette and Republic/Michigamme school districts' teachers rated two areas as having an average impact, cognitive and social; and the remaining five areas

were rated as having a low impact. Teachers in the Ishpeming School District rated the social area in the average range and the six additional areas were rated as having a low impact.

Analysis of variance (ANOVA) indicated that these differences were statistically significant in all seven areas. The district that a teacher worked in made a difference in the teachers' perceptions of the inclusive education training.

Discussion:

These results are interesting in light of the fact that the trainings were all open to participants from every district. Site-based trainings were not conducted at the Superior Central School nor the NICE School. The participants rating the training as being highly effective and having average effectiveness attended the three different training sessions. "Group think" may have influenced the findings in these districts. The actual students and the degree of their handicapping conditions could be a contributing factor in the high ratings for these groups, as could the amount of administrative support received, the teacher's willingness to be participants, their overall knowledge of special education, and the length of time that they have been involved in inclusive education placements.

The results indicated that similar attitudes prevailed, either positive or negative, in each school district. Consistent responses from the teachers in each school district were noted. Outside factors may have influenced the teachers perceptions of the effectiveness of the training. Further study to determine why two districts perceived the training to be effective and six districts determined it to be ineffective in preparing teachers to meet the needs of their handicapped students is warranted.

Research Question 19

Is there a difference in teacher perceptions about inclusive education training among teachers who volunteered for student placement in their classrooms and teachers who did not volunteer to work with an inclusive education student but were assigned this responsibility anyway?

The teachers who volunteered for inclusive education student placements rated the training as having an average impact in all areas except personal care and health care. These two areas were both on the border of the average range. Teachers who were assigned student placements without volunteering rated the impact of the training as low in all seven areas with the cognitive and social areas being within a few tenths of a point of the average range.

The two sample t-test performed on teachers who volunteered for inclusive education student placements in their classrooms and those who were assigned students without volunteering indicated significant differences in the emotional, motor, communication, personal care, and health care areas, indicating that samples came from populations with different means. The treatment of being in the volunteer or assigned sample did make a difference in the teachers' perceptions of the effectiveness of the training.

Discussion:

An open, willing mind has always been essential for change and learning to occur. Teachers who are forced to accept handicapped students into their classrooms and feel inadequate in meeting their needs will have a difficult time finding success with this program or any other. Significant differences were documented by the respondents who volunteered to participate in this project. Their willingness to accept and teach handicapped students made a positive difference in their perception of the effectiveness of the training they received.

It is not always possible to place students with teachers willing to accept changes and unique challenges. Parents often make a placement request when volunteers may not be available at the grade level needed. Under these

circumstances school districts assign a student to a classroom regardless of the teacher's willingness to participate in the program. The current inclusive education training program positively altered the attitudes of twenty percent of the participants which could lead to more successful placements in the future. The ideal scenario would be to place severely and moderately handicapped students only with teachers willing to accept this challenge.

Conclusions

The conclusions of this study, based on the data, are as follows:

1. Inclusive education training was perceived by teachers as having an average impact in preparing them to meet the social needs of severely and moderately handicapped students integrated into general education classrooms, and a low impact for preparedness in the cognitive, emotional, motor, communication, personal care, health care and collaboration areas.
2. The variables of teaching level, sex, years of teaching experience, area of teaching assignment,

number of college courses in special education, number of inclusively placed students, and number of consultation/staffing meetings held had little effect on the perceptions of teachers regarding the effectiveness of their training. Teachers in all groups perceived the training as having a low impact for preparedness.

3. The training session attended did not alter the perceptions of the participants. Teachers who were trained at the two-day, three-day, or five half-day sessions all perceived the training as having a low impact for preparedness.
4. Teachers from the Superior Central School District perceived inclusive education training as having a high impact on preparing them to meet student needs; teachers from the NICE School District perceived the training to have an average impact; and teachers from the Ishpeming, Negaunee, Gwinn, Marquette, Republic/Michigamme, and Munising school districts perceived inclusive education training as having a low impact on preparing them to meet the needs of severely and moderately handicapped students in general education classrooms.

5. Teachers who volunteered for inclusive education student placements in their classrooms perceived the training as having an average impact on preparing them to meet the needs of severely and moderately handicapped students in their classrooms; while teachers who were assigned students without volunteering perceived the training as having a low impact on preparing them to meet student needs.

Recommendations

The following recommendations are based on the findings of this study:

1. This study found that teachers perceived the two, three, and five half-day training sessions as having a low impact on preparing them to meet the needs of severely and moderately handicapped students in general education classrooms. It is recommended that teachers only attend two day training sessions. This would save the district money in consultant fees, and substitute wages to give teachers the released time for the training.

2. This study found that the training should be continued as it did have an average impact in preparing teachers to meet the social needs of severely and moderately handicapped students in general education classrooms.
3. This study found that the training should be continued for teachers as it changed the attitude of twenty percent of the participants, making them more willing to accept inclusive education and inclusively placed students.
4. This study found that inclusive education student placements should be limited to classrooms with teachers who have volunteered to accept severely and moderately handicapped students whenever possible. The teachers who volunteered for placements perceived the training to have average effectiveness in preparing them to meet the needs of the severely and moderately handicapped students.
5. This study found that more training needs to be provided in the motor, personal care, and health care skill areas. The overall mean responses to these items were very low. Additional emphasis could result in increased preparation scores.

6. This study found that collaboration efforts among school personnel were low due to the lack of time available to schedule multiple staff meetings. It is recommended that school districts develop a plan that allows for collaborative planning time for teachers working with inclusive education students.

Suggestions for Further Research

The following are suggestions for further research:

1. A comparison study should be done using the "Effectiveness of Training Questionnaire" with teachers in another pilot area of the Michigan Inclusion Project to determine if teachers perceive the training as having the same impact on their abilities to meet the needs of severely and moderately handicapped students in another intermediate school district and/or pilot area.
2. A follow-up study should be done a year following the inclusive education training, and the results should be compared to the results of this study to determine if inclusive education training

continued to have the same perceived impact on the teachers' preparedness to meet the needs of their handicapped students.

3. A study should be done comparing the Michigan Inclusive Education Training Model with the Vermont Homecoming Model to determine which model has more of an impact on preparing teachers to meet the needs of their handicapped students.
4. A longitudinal study should be done following particular students through the public school grades to determine if the teachers perceive the impact of the training the same with newly placed students and with students who have had consecutive grade placements within the district.
5. A study should be done with a larger sample to determine if the results are the same when more teachers are surveyed.
6. A study should be conducted to determine why the Superior Central teachers and the NICE teachers perceived the training to be so much more effective than the teachers in the other six participating districts.

7. A study should be conducted to determine the effectiveness of each unit presented during the inclusive education training program.

Reflections

Providing effective inclusive education training is an essential component in the integration process of severely and moderately handicapped children. General education teachers participating in this study indicated that they felt unprepared to effectively teach this population in their classrooms. The two and three day training sessions being provided in the Marquette-Alger Intermediate School District region were viewed as inadequate.

Teacher education programs require four to six years of coursework and internships to train professionals who are certificated and prepared to provide the appropriate instruction to severely and moderately handicapped students. Additionally, these students with moderate and severe handicapping conditions, have been taught in classrooms where the maximum student enrollment was limited, by state regulations, to ten students. General education classrooms usually average 25-30 students with a wide diversity of abilities. It is understandable why the current training was perceived by participating teachers as an orientation on total intergration. It was effective in providing general

information on inclusive education and was influential in changing the attitude of twenty percent of the participants to positive acceptance of the students and the overall program. It was not effective in training teachers to meet the overall needs of the severely and moderately handicapped students being included in their classrooms on a full-time basis.

Based on the fact that most teachers found the training to have a low impact in preparing them to meet the needs of severely and moderately handicapped students, revisions are imperative. Additional emphasis must be placed on practices that can be effectively utilized to bring about goal acquisition for this student population now included in general education classrooms. The training needs to be on-going with support and release time for planning included. Ideally, the training would be provided to teachers before they accepted a handicapped student. Observations and actual experience working with this population in the general education setting should be included as part of the program training. A proactive role needs to be initiated with the support mechanisms clearly in place when a district initiates an inclusive education placement.

If the training continues to alter attitudes as it did in this study, and increased numbers of teachers volunteer to work with these very special children, benefits will be derived. Presently, a structured program, designed to

alleviate the fears and frustrations of classrooms teachers, and to prepare them to meet the special needs of the severely and moderately handicapped students in their classrooms, remains in the developmental stages in Michigan.

A continuum of options for handicapped students must be provided during this transitional state. Inclusive education is one of the necessary options needed but should not be exclusively adopted. This will not be the best option for all handicapped students nor will it be accepted by all teachers and school communities.

Total integration will, however, continue to challenge handicapped students, their home communities, and the public education program now and in the future. It has been the impetus for a paradigm shift in education in Canada and many states in the United States, and has created an emotional response from supporters and opponents alike. The success and/or failure of pilot projects, such as the Michigan program, will be influential in shaping the future parameters for special education services in the United States.

APPENDICES

APPENDIX A

APPENDIX A

Letter to Rensis Likert Associates Requesting Permission
to Use Scaling Format

197 Old Kiln Road
Marquette, MI 49855
April 10, 1991

Ms. Edie Wessner, President
Rensis Likert Associates, Inc.
Suite 401 Wolverine Tower
3001 S. State Street
Ann Arbor, MI 48104-7352

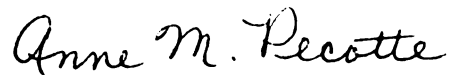
Dear Ms. Wessner:

Thank you for your verbal permission to use the "To What
Extent" scaling format from your "Survey of Organizations
2000."

Enclosed is a copy, for your file, of the questionnaire
that I have devised to use in my dissertation research.
As we discussed, I would like written permission to use
the "To What Extent" phrase and scaling format from your
"Survey of Organizations 2000" questionnaire. Please
note that the content of the questions is very different.

I appreciate your time and assistance in this matter.

Sincerely,



Anne M. Pecotte

Enclosures

APPENDIX A

Return Letter From Rensis Likert Associates Granting Permission
to Use the Scaling Format



Rensis Likert Associates, Inc.

Consultants in Organization Diagnosis and Human Resource Development

May 23, 1991

Anne M. Pecotte
197 Old Kiln Road
Marquette, MI 49855

Dear Ms. Pecotte:

I apologize for the delay in responding to your initial request; your letter was inadvertently filed with other materials, so I appreciate your gentle reminder.

I do remember talking with you on the telephone and giving you verbal permission to use the extent scale format in your questionnaire. As I thought about your request more, it became evident to me that you do not need written or verbal permission to use this scale. Although our Survey of Organizations-2000 uses this scaling format, the scale itself is not copyrighted and is, in fact, used by many people who develop questionnaires. In other words, you have every right to use this scale in your dissertation.

Again, I am sorry for the delay in conveying this information to you. Good luck with your dissertation.

Sincerely,

A handwritten signature in cursive script that reads 'Edie Wessner'.

Edie Wessner
President

APPENDIX A

Letter to Teachers Requesting Assistance for the Pilot
Study and to Determine the Clarity of the Items

April 11, 1991

Dear Marla,

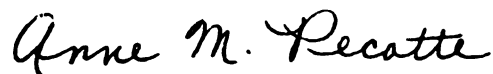
Enclosed is a questionnaire that I have developed to examine the effectiveness of the inclusive education training currently available in the Marquette-Alger Intermediate School District.

I need your guidance in helping me to make appropriate changes. Please complete the questionnaire as explained in the instructions and indicate whether each question is clear or not clear. If you mark not clear, please indicate why it is not clear.

Please return the questionnaire to me in the self-addressed envelope by Monday, April 22, 1991. I would like to conduct the survey for all teachers who participated in the trainings during the first week in May.

I appreciate your assistance in providing feedback as to the clarity and validity of the questions in the survey.

Sincerely,



Anne M. Pecotte, Special Education Coordinator
Gwinn Area Community Schools

Enclosures

APPENDIX A

Letter to Panel Requesting Assistance to Determine the
Validity of the Questionnaire

April 11, 1991

Dr. Jayne Mohr
Director of Curriculum and Special Projects
Marquette Area Public Schools
1201 W. Fair Ave.
Marquette, MI 49855

Dear Jayne:

Enclosed is a questionnaire that I will be using to collect data for my dissertation. It was developed to examine the effectiveness of the inclusive education training currently available in the Marquette-Alger Intermediate School District region as perceived by general and special education teachers who participated in the training from July, 1990 through October, 1990. Several sources have been used to construct the questionnaire including LeRoy (1990), Burke (1987), Likert (1988) and teacher comments.

I need your assistance to help me determine the validity of this instrument. Please read each question and mark on the questionnaire in the appropriate column whether you feel it is valid or not valid as related to inclusive education training and its impact in effectively preparing teachers to meet the needs of children with severe and/or moderate disabilities who are integrated into general education classrooms. Please write in any comments that you may have regarding the clarity of the items, also.

Please return the questionnaire to me, in the enclosed self-addressed envelope by April 22, 1991.

I really appreciate your time and assistance in this project. I am hoping to complete my degree requirements by July, 1991.

Sincerely,



Anne M. Pecotte

Enclosures

APPENDIX A

Letter to Area Superintendents Requesting Permission to Conduct
the Study in their School Districts

April 27, 1991

Mr. William Hyry, Superintendent
NICE Community School District
300-400 Westwood Drive
Ishpeming, MI 49849

Dear Mr. Hyry:

During this past year seven (7) teachers from your school district participated in an inclusive education training workshop. The training was designed to facilitate the placement of special education students with severe and/or moderate disabilities into regular education classrooms in their neighborhood schools.

This has been a new and challenging experience for school professionals in our intermediate school district area. I am interested in the perceptions that teachers have regarding the effectiveness of the training that they have received. I have, therefore, developed a questionnaire to measure the extent to which teachers perceive that inclusive education training has prepared them to meet the needs of severely and/or moderately impaired children who are integrated into their classrooms. This research project is part of the requirements for my doctoral degree from Michigan State University.

I would like your permission to send the questionnaire to the teachers in your district who participated in this training. Participation will be voluntary on their part. The questionnaire takes approximately fifteen minutes to complete. All individual responses are confidential but participating district profiles will be charted and reviewed. Sixty teachers from the Marquette-Alger area schools will be given the opportunity to respond to the questionnaire.

I have enclosed a self-addressed postcard for your convenience in responding. I appreciate your time and will share the research results with you when they become available.

If you have any questions or concerns, please contact me at 942-7233. Thank you.

Sincerely,

Mrs. Anne Pecotte

Mrs. Anne Pecotte, Special Education Coordinator
Gwinn Area Community Schools

APPENDIX A

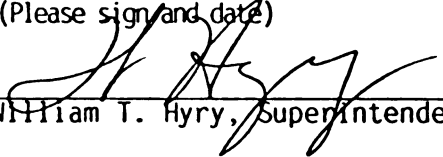
Response Cards From Superintendents Granting Permission to Conduct the Study
in Their Schools

PERMISSION TO CONDUCT RESEARCH

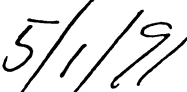
Yes, I give you permission to contact teachers
in the NICE district regarding the Inclusive
Education Training they received.

No, I prefer that teachers in this district not
participate in this study.

(Please sign and date)



William T. Hyry, Superintendent



date

MICHIGAN STATE UNIVERSITY

OFFICE OF VICE PRESIDENT FOR RESEARCH
AND DEAN OF THE GRADUATE SCHOOL

EAST LANSING • MICHIGAN • 48824-1046

May 9, 1991

Anne Pecotte
197 Old Kiln Road
Marquette, MI 49855

RE: TEACHERS' PERCEPTIONS IN THE MARQUETTE-ALGER INTERMEDIATE SCHOOL DISTRICT (MAISD) ON THE EFFECTIVENESS OF INCLUSIVE EDUCATION TRAINING IN MEETING THE NEEDS OF STUDENTS WITH SEVERE AND MODERATE DISABILITIES WHEN INTEGRATED INTO GENERAL EDUCATION CLASSROOMS, IRB#91-221

Dear Ms. Pecotte:

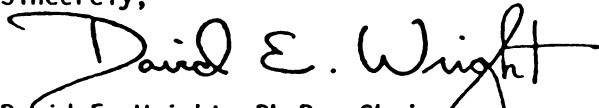
The above project is exempt from full UCRIHS review. The proposed research protocol has been reviewed by another committee member. The rights and welfare of human subjects appear to be protected and you have approval to conduct the research.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval one month prior to May 8, 1992.

Any changes in procedures involving human subjects must be reviewed by UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to my attention. If I can be of any future help, please do not hesitate to let me know.

Sincerely,



David E. Wright, Ph.D., Chair
University Committee on Research Involving
Human Subjects (UCRIHS)

DEW/deo

cc: Dr. John Suehr

APPENDIX A

Letter to Teachers Explaining the Study and Asking for
Their Participation

May 1, 1991

Dear Teacher,

Attached to this cover letter is a questionnaire. I would appreciate it if you would take approximately fifteen minutes to thoughtfully complete it.

I am the special education coordinator for the Gwinn Area Community Schools and a doctoral student at Michigan State University. I am interested in studying teacher perceptions of the effectiveness of the inclusive education training workshops that have been provided in our area cooperatively by the Developmental Disabilities Center at Wayne State University and the Marquette-Alger Intermediate School District.

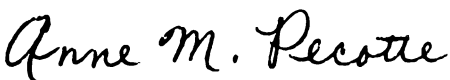
The concept of inclusive education has been introduced in our ISD area and continues to add more students with unique and challenging needs to the general education setting. Preparation and/or in-service training is essential if teachers are to effectively meet the diverse needs of this population. Your responses to this questionnaire will help to evaluate the effectiveness of the training that is currently being provided.

Participation is voluntary and your responses will be kept confidential. You may choose not to participate or not to answer certain questions. After completion of this study, I will send you an overview of the major findings.

Please return the completed questionnaire to me in the enclosed self-addressed envelope by May 15, 1991. I would like to have the results available prior to the close of this school year. Your promptness in responding will be greatly appreciated. Feel free to contact me if you have any questions or concerns.

Thank you so much for your time and assistance.

Sincerely,



Anne M. Pecotte

APPENDIX A

Follow-up Letter Mailed to Teachers with a Copy of the
Questionnaire and Directions

May 25, 1991

Dear Ann,

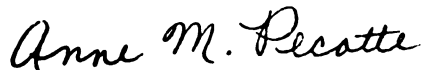
On May 1, 1991, you were mailed a copy of the enclosed survey materials regarding the training you received on inclusive education. If you completed the first questionnaire mailed to you, I would like to thank you.

This second mailing is being sent to the possible non-respondents from each school district. As names were not included on the surveys, it is impossible to know who exactly has or has not responded. (Six out of eleven teachers have responded from your district). To date I have received 44 of 59 questionnaires mailed to participants throughout the Marquette and Alger County regions. This yields a response rate of 75%. I need a minimum return rate of 90% to secure reliable research results. Nine more surveys need to be received to accomplish this.

Would you please help me in my research efforts by completing the enclosed survey, if you have not already done so? I am waiting to publish the results, so your timely attention will be greatly appreciated.

These results will be shared with you, your school superintendent, MAISD, and Jill England and Tom Osbeck. Your input is very important in these research efforts as there is a relatively low number of participants. Your time and attention is appreciated and needed.

Sincerely,



Anne M. Pecotte, Special Education Coordinator
Gwinn Area Community School District

APPENDIX B

APPENDIX B
TEACHERS' PERCEPTIONS
OF THE
EFFECTIVENESS OF TRAINING QUESTIONNAIRE

Thank you in advance, for taking the time to answer the following questions. Your cooperation is appreciated.

GENERAL INFORMATION

The enclosed questionnaire was designed to collect information about teachers' perceptions on the effectiveness of inclusive education training. The purpose is to examine the extent to which inclusive education training prepared you to meet the cognitive, social, emotional, motor, communication, health care, and personal care needs of students with severe and/or moderate disabilities who were integrated into general education classrooms.

There are no right or wrong answers. Your responses are confidential. To ensure confidentiality, do not write your name on this questionnaire.

Questions such as age, teaching level, and length of training will not be used to identify you, but will show how different groups of teachers respond to the questions.

INSTRUCTIONS

For the demographic section, please mark an X on the appropriate line.

There are five possible responses for each question pertaining to the inclusive education training. Please answer these questions whether you are currently working with an inclusive education student or not. Your perceptions of the effectiveness of the training are what I am analyzing, so your responses are valid even if you do not have an inclusive education student in your classroom. Please mark an X in the box of the response which most closely matches your perception. Mark only one box per question.

The response categories are:

- 1 = To a very little extent (VL)
- 2 = To a little extent (L)
- 3 = To some extent (S)
- 4 = To a great extent (G)
- 5 = To a very great extent (VG)

APPENDIX B
TEACHERS' PERCEPTIONS
OF THE
EFFECTIVENESS OF TRAINING QUESTIONNAIRE

DEMOGRAPHIC INFORMATION

1. SEX:
 Male
 Female
2. AGE:
 25 years old or less
 26 years to 35 years
 36 years to 45 years
 46 years to 55 years
 56 years or older
3. LEVEL YOU PRESENTLY TEACH:
 Elementary
 Middle
 Secondary
4. AREA YOU PRESENTLY TEACH:
 General Education
 Special Education
5. YEARS OF TEACHING EXPERIENCE:
 Less than 5 years
 6 - 10 years
 11 - 20 years
 21 years or more

6. LENGTH OF THE INCLUSIVE EDUCATION TRAINING WORKSHOP ATTENDED:
- 2 Full Days
- 3 Full Days
- 5 Half Days
7. INCLUSIVE EDUCATION TRAINING WORKSHOP LOCATION:
- Summer 1990 Morning Session
- Summer 1990 Afternoon Session
- September 1990 Session in Marquette
- October 1990 Session in Munising
- Other (please specify) _____
8. NUMBER OF STAFFINGS/CONSULTATION TEAM MEETINGS ON INCLUSIVE EDUCATION STUDENTS THAT YOU HAVE BEEN INVOLVED IN SINCE YOUR TRAINING:
- 0 Staffings/Consultation Team Meetings
- 1 - 3 Staffings/Consultation Team Meetings
- 4 - 6 Staffings/Consultation Team Meetings
- 7 or More Staffings/Consultation Team Meetings
9. HAS THE NUMBER OF STAFFING/CONSULTATION TEAM MEETINGS THAT YOU HAVE BEEN INVOLVED IN ADEQUATELY SUPPORTED YOUR NEEDS?
- Yes
- No
10. DURING THE STAFFINGS/CONSULTATION TEAM MEETINGS YOUR GROUP FACILITATOR WAS FROM: (mark all that apply)
- The Local School District (Administrator or Special Education Personnel)
- Marquette-Alger Intermediate School District
- The Developmental Disabilities Institute (Jill England and/or Tom Osbeck)
11. DO YOU WORK WITH AN INCLUSIVE EDUCATION AIDE?
- Yes
- No

12. INDICATE THE NUMBER OF INCLUSIVE EDUCATION STUDENTS THAT YOU WORK WITH IN THE GENERAL EDUCATION SETTING:
- _____ 0 Students
_____ 1 Student
_____ 2 Students
_____ 3 Students
_____ 4 or More Students
13. IF YOU DO WORK WITH AN INCLUSIVE EDUCATION STUDENT, HOW LONG HAVE YOU WORKED TOGETHER?
- _____ 1 - 3 Months
_____ 4 - 6 Months
_____ 7 - 9 Months
_____ More Than One School Year
_____ Not Applicable At This Time
14. IF YOU ARE A GENERAL EDUCATION TEACHER, INDICATE THE NUMBER OF COLLEGE COURSES YOU HAVE COMPLETED IN THE SPECIAL EDUCATION AREA:
- _____ 0 Classes
_____ 1 Class
_____ 2 Classes
_____ 3 or More Classes
_____ Not A General Education Teacher
15. HAS THE INCLUSIVE EDUCATION TRAINING CHANGED YOUR ATTITUDE, MAKING YOU MORE WILLING TO ACCEPT A STUDENT WITH CHALLENGING NEEDS IN YOUR CLASSROOM?
- _____ Yes, It Did Change My Attitude
_____ No, It Did Not Change My Attitude
_____ I Was Willing To Accept An Inclusive Student Before The Training
_____ Not applicable, I Am Not A Classroom Teacher

16. DID YOU VOLUNTEER FOR INCLUSIVE EDUCATION STUDENT PLACEMENT IN YOUR CLASSROOM, OR WERE YOU ASSIGNED THIS RESPONSIBILITY WITHOUT VOLUNTEERING?

_____ I Volunteered for Student Placement

_____ I Was Assigned Student Placement Without Volunteering

17. INDICATE ALL SUPPORT PERSONNEL THAT YOU WORK WITH TO COLLABORATIVELY MEET THE NEEDS OF INCLUSIVE EDUCATION STUDENTS:

_____ Resource Room Teacher

_____ Classroom Teacher

_____ Special Class Teacher/s (Art, Music, P.E.)

_____ Classroom Instructional Aide

_____ Speech/Language Therapist

_____ Chapter 1 Teacher

_____ Developmental Reading Teacher

_____ Guidance Counselor

_____ Building Principal

_____ School Psychologist

_____ Social Worker

_____ Physical Therapist

_____ Occupational Therapist

_____ Music Therapist

_____ Health Care Aide

_____ Teacher/Consultant for Emotionally Impaired

_____ Integration Consultant From the MAISD

_____ School Nurse

_____ Other (specify) _____

18. PLEASE INCLUDE ANY COMMENTS: _____

DIRECTIONS: Please respond to the questionnaire items based on your perceptions of the effectiveness of the inclusive education training whether you are currently working with an inclusive education student or not.

Response categories:

- 1 = To a very little extent (VL)
- 2 = To a little extent (L)
- 3 = To some extent (S)
- 4 = To a great extent (G)
- 5 = To a very great extent (VG)

	VL 1	L 2	S 3	G 4	VG 5
1. To what extent has inclusive education training helped you to identify opportunities within the classroom setting for social interaction among students with severe/moderate disabilities and their classmates?					
2. To what extent has inclusive education training helped you to effectively provide instruction in the area of social skills to students with severe/moderate disabilities that are integrated into a regular classroom?					
3. To what extent has inclusive education training helped you to alter the inappropriate social responses of students with severe/moderate disabilities (e.g. aggression, non-responsiveness, withdrawal) if/when they occur in the regular classroom?					
4. To what extent has inclusive education training helped you to collaboratively plan and work with other school professionals to meet the social needs of students with severe/moderate disabilities in the regular classroom?					
5. To what extent has inclusive education training helped you to identify alternative instructional modifications (e.g. peer tutoring, small group instruction, cooperative learning) that meet the cognitive skill needs of students with severe/moderate disabilities in the regular classroom?					
6. To what extent has inclusive education training helped you to make curriculum adaptations that meet the academic skill needs of students with severe/moderate disabilities in the regular classroom?					

	VL 1	L 2	S 3	G 4	VG 5
7. To what extent has inclusive education training helped you to select different materials that meet the academic skill needs of students with severe/moderate disabilities in the regular classroom?					
8. To what extent has inclusive education training helped you to work collaboratively with other school professionals to meet the academic needs of students with severe/moderate disabilities in the regular classroom?					
9. To what extent has inclusive education training helped you to plan cognitive activities, in the regular classroom, that address the functional skills needed in the school and community for students with severe/moderate disabilities?					
10. To what extent has inclusive education training helped you to provide communication opportunities for students with severe/moderate disabilities and peers in the regular education classroom?					
11. To what extent has inclusive education training helped you to provide instruction that increases the expressive language of students with severe/moderate disabilities in the regular classroom?					
12. To what extent has inclusive education training helped you to provide instruction that increases the receptive language skills of students with severe/moderate disabilities in the regular classroom?					
13. To what extent has inclusive education training helped you to identify a variety of techniques (language master, picture boards, computer programs, sound boards, sign language) to increase communication skills of students with severe/moderate disabilities in the regular classroom?					
14. To what extent has inclusive education training helped you to use augmented equipment to meet the unique communication needs of students with severe/moderate disabilities in the regular classroom?					

	VL	L	S	G	VG
	1	2	3	4	5
15. To what extent has inclusive education training helped you to work collaboratively with other school professionals to meet the communication needs of students with severe/moderate disabilities in the regular classroom?					
16. To what extent has inclusive education training helped you to identify and plan activities that increase the fine motor skills of students with severe/moderate disabilities in the regular classroom?					
17. To what extent has inclusive education training helped you to plan activities that increase the gross motor skills of students with severe/moderate disabilities in the regular classroom?					
18. To what extent has inclusive education training helped you to plan adapted physical activities to meet the motor needs of nonambulatory students with severe/moderate disabilities in the regular classroom?					
19. To what extent has inclusive education training helped you to work collaboratively with other school professionals to meet the motor needs of students with severe/moderate disabilities in the regular classroom?					
20. To what extent has inclusive education training helped you to identify alternative ways to manage the behavior of students with severe/moderate disabilities in the regular classroom?					
21. To what extent has inclusive education training helped you to plan activities that will decrease inappropriate behaviors of students with severe/moderate disabilities in the regular classroom?					
22. To what extent has inclusive education training helped you to identify appropriate behaviors for students with severe/moderate disabilities in the regular classroom?					

	VL	L	S	V	VG
	1	2	3	4	5
23. To what extent has inclusive education training helped you to plan activities that will reinforce and increase the number of appropriate behaviors that students with severe/moderate disabilities display in the regular classroom?					
24. To what extent has inclusive education training helped you to work collaboratively with other school professionals to meet the emotional needs of students with severe/moderate disabilities in the regular classroom?					
25. To what extent has inclusive education training helped you to plan activities that will increase the ability of students with severe/moderate disabilities to independently care for their dressing and undressing needs in the school setting?					
26. To what extent has inclusive education training helped you to plan activities that will increase appropriate realtime skills for students with severe/moderate disabilities in the school setting?					
27. To what extent has inclusive education training helped you to provide instruction and/or care for students with severe/moderate disabilities to promote independent toileting skills in the school setting?					
28. To what extent has inclusive education training helped you to work collaboratively with other school professionals to meet the personal care needs of students with severe/moderate disabilities in the regular classroom?					
29. To what extent has inclusive education training helped you to plan activities that will develop the personal hygiene skills of students with severe/moderate disabilities in the regular classroom?					
30. To what extent has inclusive education training helped you to work collaboratively with other school professionals to meet the health care needs of students with severe/moderate disabilities in the regular classroom?					

BIBLIOGRAPHY

BIBLIOGRAPHY

- "A+ Schools: Portraits of Schools That Work." Instructor, May 1984: 18-20.
- "Agreement Between Board of Education Gwinn Area Community Schools and Gwinn Education Association." Master Agreement: 1990-1993: 35.
- Aksamit, D. and Alcorn, D. "A Preservice Mainstream Curriculum Infusion Model: Student Teachers' Perceptions of Program Effectiveness." Teacher Education and Special Education, 1988: 52-58.
- Alexander, K. and Alexander, M. D. "Rights of Handicapped Children." American Public School Law, 2nd ed., West Publishing Co., New York, 1985: Chapter 9, 365-403.
- Baer, D. "'Exemplary Service To What Outcome?' Review of Education of Learners with Severe Handicaps: Exemplary Service Strategies." Journal of the Association for Persons with Severe Handicaps, 1986: 145-147.
- Beekman, L. "Inclusion: A Paradigm Shift for the State of Michigan." Paper presented at Macomb ISD, February 28, 1990.
- Biklen, D. Achieving the Complete School: Strategies for Effective Mainstreaming. New York: Teachers College Press, 1985.
- Blackman, H. "Special Education Placement: Is It What You Know or Where You Live?" Exceptional Children, February 1989: 459-462.
- Blatt, B. In Biklen, D. Achieving the Complete School: Strategies for Effective Mainstreaming. New York: Teachers College Press, 1985.
- Bogdan, R. "Does Mainstreaming Work? Is A Silly Question." Phi Delta Kappan, February 1983: 427-428.

- Bohlin, J. K. "Launching Kevin Into the Mainstream." Exceptional Parent, September 1989: 30-33.
- Brady, M. and Gunter, P. "Review Your Role in Educating Severely Handicapped Kids." The Executive Educator, June 1985: 26-29.
- Brinker, R. "Interaction Between Severely Mentally Retarded Students and Other Students in Integrated and Segregated Public School Settings." American Journal of Mental Deficiency, 1985: 587-594.
- Brinker, R., and Thorpe, M. "Integration of Severely Handicapped Students and the Proportion of IEP Objectives Achieved." Exceptional Children, October 1984: 168-174.
- Brown, L., Long, E., Udvari-Solner, A., Schwartz, P., VanDeventer, P., Ahlgren, C., Johnson, F., Gruenewald, L. and Jorgensen, J. "Should Students with Severe Intellectual Disabilities be Based in Regular or in Special Education Classrooms in Home Schools?" Journal of the Association for Persons with Severe Handicaps, 1989: 8-12.
- Brown, L., Branston, M. B., Hamre-Nietupski, S., Pumpian, I., Certo, N. and Gruenewald, L. "A Strategy for Developing Chronological-Age-Appropriate and Functional Curricular Content for Severely Handicapped Adolescents and Young Adults." The Journal of Special Education, 1979: 81-90.
- Brown v. Board of Education, 347 U.S. 483 (1954).
- Burke, D., Frey, W. and Sumpter, L. "Program Effectiveness Review (PER) Volume I, Quality Standards and Criteria for Programs Serving Students with Handicaps." Michigan State University, 1987.
- Byrnes, M. "The Regular Education Initiative Debate: A View from the Field." Exceptional Children, January 1990: 345-349.
- Dahl, H. "The Education of Severely and Profoundly Handicapped Children and Youth: Some Issues that Currently Need to be Resolved." Paper presented at Canadian Symposium on Special Education Issues, Toronto, Canada, March 5, 1986: 1-15.
- Danielson, L. and Bellamy, T. "State Variation in Placement of Children with Handicaps in Segregated Environments." Exceptional Children, February 1989: 448-455.

- Davis, W. "Broad Perspectives on the Regular Education Initiative: Response to Byrnes." Exceptional Children, January 1990: 349-351.
- _____. "The Regular Education Initiative Debate: Its Promises and Problems." Exceptional Children, February 1989: 440-446.
- Education For All Handicapped Children Act, 20 U.S.C. 1412(5)(B)(1975).
- Elias, L. "Jason and the Neighborhood Kids: Mainstreaming on the Home Front." The Exceptional Parent, December 1980: 9-12.
- _____. "Jason Goes to First Grade." The Exceptional Parent, February 1983: 12-13.
- Elias, L., Goble, G., Schefer, B., and Jaco, J. "Jason Goes to Kindergarten." The Exceptional Parent, February 1983: 55-57.
- Elias, L., Medvin, R., Schefer, B., and Tenn, E. "Jason Goes." The Exceptional Parent, September 1986: 12-13.
- Esposito, B., and Reed, T. "The Effects of Contact with Handicapped Persons on Young Children's Attitudes." Exceptional Children, November 1986: 224-229.
- Falvey, M. A. "Changes in Academic and Social Competence of Kindergarten Aged Handicapped Children as a Result of an Integrated Classroom." Doctoral dissertation, University of Wisconsin-Madison, 1980.
- Fiedler, C. and Simpson, R. "Modifying the Attitudes of Nonhandicapped High School Students Toward Handicapped Peers." Exceptional Children, January 1987: 342-349.
- Ford, A., Foster, S. B., Searl, S. and Taylor, S. The Brown Model School Project: A Description. Syracuse, NY: Syracuse University, The Center on Human Policy, June 1984.
- Forest, M. and Lusthaus, E. "Everyone Belongs with the MAPS Action Planning System." Teaching Exceptional Children, Winter 1990: 32-35.
- Fox, T. "Best Practice Guidelines for Students with Intensive Educational Needs." Statewide project. Center for Developmental Disabilities, University of Vermont, Burlington, Vermont, Fall 1987.

- Fox, W., Thousand, J., Fox, T., Williams, W., Lewis, P., Reid, R. and Creedon, S. "Proposed State Guidelines for the Education of Students with Moderate/Severe Handicaps." Statewide project, Center for Developmental Disabilities, University of Vermont, Burlington, Vermont, November, 1986.
- Fredericks, B. "I Helped My Son into the Mainstream." The Exceptional Parent, September 1986: 14-17.
- Fredericks, H., Riggs, C., Furey, T., Grove, D., Moore, W., McDonnell, J., Jordan, E., Hanson, W., Baldwin, V. and Wadlow, M. The Teaching Research Curriculum for Moderately and Severely Handicapped. Illinois: Charles C. Thomas Publisher, 1976.
- Fuchs, D. and Fuchs, L. "Evaluation of the Adaptive Learning Environments Model." Exceptional Children, October 1988: 115-127.
- Gartner, A. and Lipsky, D. "Beyond Special Education: Toward a Quality System for All Students." Harvard Educational Review, November 1987: 367-395.
- Gaylord-Ross, R. Integration Strategies for Students with Handicaps. Maryland: Paul H. Brooks Publishing Co., 1989.
- Gent, P. and Mulhauser, M. "Public Integration of Students with Handicaps: Where It's Been, Where It's Going, and How It's Getting There." Journal of the Association for Persons with Severe Handicaps, 1988: 188-196.
- Giangreco, M. F. "Making Related Service Decisions for Students with Severe Disabilities: Roles, Criteria, and Authority." Journal of the Association for Persons with Severe Handicaps, 1990: 22-31.
- Greer, J. "No More Noses to the Glass." Exceptional Children, January 1988: 294-296.
- Halvorsen, A., and Sailor, W. "Integration of Students with Severe and Profound Disabilities: A Review of Research." Gaylord-Ross, R. (Ed.). Issues and Research in Special Education. N.Y.: Teachers College Press, 1990: Chapter 3, 110-172.
- Hamre-Nietupski, S., Ayres B., Nietupski, J., Savage, M., Mitchell, B. and Bramman, H. "Enhancing Integration of Students with Severe Disabilities Through Curricular Infusion: A General/Special Educator Partnership." Education and Training in Mental Retardation, March 1989: 78-88.

- Hanline, M. and Halvorsen, A. "Parent Perceptions of the Integration Transition Process: Overcoming Artificial Barriers." Exceptional Children, April 1989: 487-492.
- Hanline, M. and Murray, C. "Integrating Severely Handicapped Children into Regular Public Schools." Phi Delta Kappan, December 1984: 273-276.
- Hessler, Gary L. "The Regular Education Initiative: Issues and Prospects." Undated manuscript, Consultant Services Department, Macomb Intermediate School District.
- Hill, B., Lakin, C. and Bruininks, R. "Trends in Residential Services for People Who are Mentally Retarded: 1977-1982." Journal of the Association for Persons with Severe Handicaps, 1984: 243-250.
- Jones, B. "The Truth About Mainstreaming." Fall 1988: 12-13.
- Knapczyk, D. "Peer-Mediated Training of Cooperative Play Between Special and Regular Class Students in Integrated Play Settings." Education and Training in Mental Retardation, September 1989: 255-264.
- Kunc, N. "Integration: Being Realistic Isn't Realistic." Canadian Journal for Exceptional Children, 1984: 41-51.
- LeRoy, B. (comp.) Michigan Inclusive Education Project: Evaluation Model. Center for Inclusive Education, Developmental Disabilities Institute, Wayne State University, 1990.
- LeRoy, B. The Effect of Classroom Integration on Teacher and Student Attitudes, Behaviors, and Performances in Saline Area Schools. Center for Inclusive Education, Developmental Disabilities Institute, Wayne State University, June, 1990.
- Lieberman, L. "Special Education and Regular Education: A Merger Made in Heaven?" Exceptional Children, 1985: 513-515.
- Lilly, S. "The Regular Education Initiative: A Force for Change in General and Special Education." Education and Training in Mental Retardation, December 1988: 253-260.
- Lipsky, D., and Gartner, A. "Capable of Achievement and Worthy of Respect: Education for Handicapped Students As If They Were Full-Fledged Human Beings." Exceptional Children, September 1987: 69-74.

Mackan, P. and Cormier, L. The Dynamics of Support Circles.
Toronto: Frontier College, 1988.

Marquette (Michigan) The Mining Journal, March 9, 1991.

Medwetz, L. and Vandercook, T. "What's Working. . . in Inclusive Education?" Minnesota Inclusive Education Technical Assistance Program Newsletter, Fall/Winter 1990-91.

"Meeting of Experts on Integration of Severely and Multiply Handicapped Persons into General and Vocational Education." Final Report of the United Nations Educational, Scientific, and Cultural Organization. Heidelberg, West Germany, October 1981.

Mesinger, J. "Commentary on 'A Rationale for the Merger of Special and Regular Education' or, Is It Now Time for the Lamb to Lie down with the Lion?" Exceptional Children, April 1985: 510-512.

Mills v. Board of Education, 348 F. Supp. 866 (1972).

Osguthorpe, R. "Trading Places: Why Disabled Students Should Tutor Non-Disabled Students." The Exceptional Parent, September 1985: 41-48.

Pegnatore, L. "Integration of SPH Students with Non-Handicapped Peers at Pine Ridge Center." Doctoral dissertation, Nova University, December 1984.

Pennsylvania Association of Retarded Citizens (PARC) v. Commonwealth, 334 F. Supp. 1257 (1971).

Phillips, V. and Mc Cullouch, L. "Consultation-Based Programming: Instituting the Collaborative Ethic in Schools." Exceptional Children, January 1990: 291-304.

Pugach, M. "The National Education Reports and Special Education: Implications for Teacher Preparation." Exceptional Children, January 1987: 308-314.

Pugach, M. and Sapon-Shevin, M. "New Agendas for Special Education Policy: What the National Reports Haven't Said." Exceptional Children, January 1987: 295-299.

Quintel, J. M. "How Are We Doing? Issues and Research Related to the Integration of Students with Special Needs." Paper presented to: The Canadian Symposium on Special Education Issues, Toronto, Canada, March, 1986.

- Reid, R. "Homecoming: The Benefits of Educating Learning Impaired Students in Their Local Schools with Their Non-disabled Peers." The Decision Maker. Center for Developmental Disabilities, University of Vermont, Burlington, Vermont, Fall 1987.
- Reynolds, M. and Birch, J. Teaching Exceptional Children in All America's Schools. The Council for Exceptional Children, Reston, VA, 1982.
- Reynolds, M. and Wang, M. "Restructuring 'Special' School Programs." A position paper. Policy Studies Review. 1983: 189-212.
- Reynolds, M. and Wang, M. and Walberg, H. "The Necessary Restructuring of Special and Regular Education." Exceptional Children, February 1987: 391-398.
- Ruttiman, A. and Forest, M. "With a Little Help From My Friends: The Integration Facilitator At Work." Entourage, Summer 1986: 24-33.
- Sailor, W., Anderson, J., Halvorsen, A., Filler, J. and Goetz, L. The Comprehensive Local School, Regular Education for all Students with Disabilities. Baltimore, MD: Paul H. Brooks, 1989.
- Salend, S. Effective Mainstreaming. New York: Macmillan Publishing Company, 1990.
- Sapon-Shevin, M. "Working Towards Merger Together: Seeing Beyond Distrust and Fear." Teacher Education and Special Education. 1988: 103-110.
- Schnorr, R., Ford, A., Davern, L., Park-Lee, S. and Meyer, L. The Syracuse Curriculum Revision Model. Michigan: Paul Brookes Publishing Co., 1989.
- Schultz, J., and Turnbull, A. Mainstreaming Handicapped Students: A Guide for Classroom Teachers. Massachusetts: Allyn and Bacon, Inc., 1984.
- Skakun, V. "Restructuring Our Educational System To Meet the Unique Needs of Every Child: A position paper on Integration within Effective Educational Settings." Edmonton, Alberta: Alberta Association for Community Living, 1988.
- _____. "Why Change Our Service Delivery in Special Education?" A position paper. Gateway Association for the Mentally Handicapped, Edmonton, Canada, 1988.

- Snell, M. "Garner and Lipsky's Beyond Special Education: Toward a Quality System for All Students." The Association for Persons with Severe Handicaps. 1988: 137-140.
- Stainback, G., Stainback, W. and Stainback, S. "Superintendents' Attitudes Toward Integration." Education and Training in Mental Retardation, June 1988: 92-96.
- Stainback, S., and Stainback, W. "A Rationale for the Merger of Special and Regular Education." Exceptional Children, October 1984: 102-111.
- _____. "Educating Students with Severe Disabilities." Teaching Exceptional Children, Fall 1988: 16-19.
- _____. "Facilitating Merger Through Personnel Preparation." Teacher Education and Special Education. 1987: 185-190.
- _____. "Integration Versus Cooperation: A Commentary on 'Educating Children with Learning Problems: A Shared Responsibility'." Exceptional Children, September 1987: 66-68.
- _____. "The Merger of Special and Regular Education: Can It Be Done? A Response to Lieberman and Mesinger." Exceptional Children. April 1985: 517-521.
- Stainback, S., Stainback, W., Courtnage, S. and Jaben, T. "Facilitating Mainstreaming by Modifying the Mainstream." Exceptional Children, October 1985: 144-152.
- Stainback, S., Stainback, W. and Harris, K. "Support Facilitation: An Emerging Role for Special Educators." Teacher Education and Special Education. 1989: 148-153.
- Stainback, W. and Stainback S. "Using Qualitative Data Collection Procedures to Investigate Supported Education Issues." Journal of the Association for Persons with Severe Handicaps. 1989: 271-277.
- Stone, B. and Brown, R. "Preparing Teachers for Mainstreaming: Some Critical Variables for Effective Preservice Programs." Educational Research Quarterly, 1986-87: 7-10.

- "Strategies on the Integration of Students with Severe Disabilities." California Research Institute, San Francisco State University, Winter 1991.
- Strully, J. and Strully, C. "Shawntell and Tanya: A Story of Friendship." The Exceptional Parent, September 1984: 35-40.
- Taylor, S. "Caught in the Continuum: A Critical Analysis of the Principle of the Least Restrictive Environment." Journal of the Association for Persons with Severe Handicaps. 1988: 41-53.
- _____. "From Segregation to Integration: Strategies for Integrating Severely Handicapped Students in Normal School and Community Settings." The Association for Persons with Severe Handicaps, Fall 1982: 42-49.
- Thousand, J. "Best Educational Practices of 1987: Effectively Integrating Students with Moderate/Severe Handicaps into Their Local Schools and Communities." The Decision Maker. Center for Developmental Disabilities, University of Vermont, Burlington, Vermont, Fall 1987.
- Thousand, J., Nevin-Parta, A. and Fox, W. "Inservice Training to Support the Education of Learners with Severe Handicaps in Their Local Public Schools." Teacher Education and Special Education. 1987: 4-13.
- Thousand, J., Fox, T., Reid, R., Godek, J., Williams, W. and Fox, W. The Homecoming Model: Educating Students who Present Intensive Educational Challenges Within Regular Education Environments. University of Vermont, Center for Developmental Disabilities, Burlington, Vermont, 1986.
- Thousand, J., Fox, T., and Williams, W. "Summary Report: Statewide Survey of the Level of Implementation and Support for Selected Practices in the Education of Learners with Severe Handicaps." Statewide Project, Center for Developmental Disabilities, University of Vermont, Burlington, Vermont, January, 1987.
- Trent, S. "'Much To Do About Nothing': A Clarification of Issues on the Regular Education Initiative." Journal of Learning Disabilities, January 1989: 23-25.
- Tucker, J. "Less Required Energy: A Response to Danielson and Bellamy." Exceptional Children, February 1989: 456-458.

- Vandercook, T., York, J. and Forest, M. "The McGill Action Planning System (MAPS): A Strategy for Building the Vision." Journal of the Association for Persons with Severe Handicaps, 1989: 204-215.
- Vandercook, T., York, J., and Johnson, S. (Comp.) "Inclusive Education for Learners with Severe Disabilities." Print and Media Resources, 3rd Ed., Institute on Community Integration, University of Minnesota, November 1990.
- Vesey, D. in Halvorsen and Sailor, "Integration of Students with Severe and Profound Disabilities: A Review of Research." Gaylord-Ross, R. (Ed.). Issues and Research in Special Education. New York: Teachers College Press, 1990: Chapter 3, 110-172.
- Villa, R. and Thousand, J. "Enhancing Success in Heterogeneous Classrooms and Schools: The Power of Partnership." Teacher Education and Special Education. 1988: 144-154.
- Vocational Rehabilitation Act, 29 U.S.C.A. 794 (1973).
- Wang, M. and Birch, J. "Comparison of a Full Time Mainstreaming Program and a Resource Room Approach." Exceptional Children, 1984: 33-40.
- Wang, M., Reynolds, M., and Walberg, H. "Integrating the Children of the Second System." Phi Delta Kappan, November 1988: 248-251.
- _____. "Rethinking Special Education." Educational Leadership, September 1986: 26-31.
- Westling, D. "Leadership for Education of the Mentally Handicapped." Educational Leadership, March 1989: 19-23.
- Wilcox, J., Sbardellati, E. and Nevin, A. "Cooperative Learning Groups Aid Integration." Teaching Exceptional Children, Fall 1987: 61-63.
- Will, M. "Educating Children with Learning Problems: A Shared Responsibility." Exceptional Children, February 1986: 411-415.
- Williams, W., Fox, T., Hall, S. and Fox, W. "Outcomes and Routines: Manual II of the Individual Program Design Series." Statewide Systems Support Project, Center for Developmental Disabilities, University of Vermont, Burlington, Vermont, 1989.

Williams, W., Fox, T., Thousand, J. and Fox, W. "Level of Acceptance and Implementation of Best Practices in the Education of Students with Severe Handicaps in Vermont." Education and Training in Mental Retardation, June 1990: 120-131.

York, J., Vandercook, T., Thurlow, M. and Stave, K. "Feedback From Middle School Students About Activities With Peers Who Have Severe Disabilities." Institute on Community Integration, University of Minnesota, April, 1988.

Zirkel, P. and Richardson, S. A Digest of Supreme Court Decisions Affecting Education. 2nd Ed., Bloomington, Indiana, 1988.

