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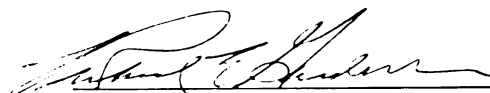
**TOWARD MAINSTREAMED HANDICAPPED STUDENTS**

presented by

Gloria Jene Smith

has been accepted towards fulfillment  
of the requirements for

PhD degree in Curriculum



Major professor

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ANALYSIS OF THE IMPACT OF A  
STAFF DEVELOPMENT PROGRAM ON TEACHER ATTITUDES  
TOWARD MAINSTREAMED HANDICAPPED STUDENTS

By  
Gloria Jene Smith

A DISSERTATION  
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## ABSTRACT

### ANALYSIS OF THE IMPACT OF A STAFF DEVELOPMENT PROGRAM ON TEACHER ATTITUDES TOWARD MAINSTREAMED HANDICAPPED STUDENTS

By

Gloria Jene Smith

This study examined the impact of a staff development program on the attitudes of teachers toward handicapped students. Administrators and other resource personnel also participated in the graduate course designed as an in-service activity. These two groups were not included in the analysis due to the small number of participants.

The question which directed this research was "does participation in a university developed in-service class result in participants demonstrating a more positive attitude toward handicapped children and youth as measured by Baker's Mainstreaming Inventory and Attitudes Toward Disabled Persons Scale (ATDP) ?"

The data for this investigation were collected from 166 teachers enrolled in an in-service activity designed as a graduate course for physical education, special education, and regular class teachers from three diverse areas - urban, suburban, and rural.

The specific purposes were to determine if attitudinal differences existed between educators by their positions, their geographic employment, their experience, their sex, and their grade level assignments.

A review of literature relevant to in-service activities for teachers of the handicapped related the importance of the teacher's attitude toward the handicapped student and the effect which it might have on the student.

Statistical procedures employed in this study were one-way analysis of variance, analysis of covariance, a posteriori analysis, and Duncan's multiple range test.

There were no significant differences in the attitudes toward mainstreaming between regular class, special education, and physical education teachers as a result of their participation in an in-service program. The educators in the various positions, with varying years of experience, of the two sexes, and in various grade level teaching assignments, were affected similarly by the in-service treatment. The findings revealed a significant difference attributable to an educator's work location. The mean for the suburban teachers differed significantly from the mean for the urban and rural groups at the .05 level.

"We can look at our accomplishments and be proud of the progress we have made; but satisfaction with the past does not assure progress in the future. New developments, ideas, and facts may show us that our past practices have become outmoded. A growing child cannot remain static - he either grows or dies. We cannot become satisfied with a job one-third done. We have a long way to go before we can rest assured that the desires of the parents and the educational needs of handicapped children are being fulfilled."

RAY T. GRAHAM

DEDICATION

To my Mother, Rosa

Whose encouragement and sacrifices made this possible



## ACKNOWLEDGMENTS

The writer wishes to express her sincere appreciation to Dr. Richard E. Gardner, Chairman of the Guidance Committee, for being patient and always ready to provide encouragement and counsel throughout the doctoral program. Special thanks to the members of the committee: Dr. Louis Romano and Dr. Ben Bohnhorst for their critiques and helpful suggestions.

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To my family...Rosa, Charles, Henry Lee... and all the others, please share this accomplishment with me, for you had the faith that it could be done. Thanks Walt for beginning the process, and Carl, for seeing it through to the end. Jackie, this one is for you. Above all else, to GOD, be the glory!

## TABLE OF CONTENTS

	Page
LIST OF TABLES . . . . .	vi
 CHAPTER	
I. INTRODUCTION. . . . .	1
Statement of Problem. . . . .	4
Purpose . . . . .	5
Research Question . . . . .	8
Hypotheses. . . . .	8
Limitations of study. . . . .	9
Assumptions . . . . .	10
Definition of terms . . . . .	10
Overview. . . . .	12
II. REVIEW OF LITERATURE. . . . .	13
Impact of In-service Programs . . . . .	13
Mainstreaming In-service for Public Law 94-142. . . . .	17
In-service Models . . . . .	19
Impact of In-service on Attitudes, Knowledge and Skills . .	23
Staff Development . . . . .	26
Summary . . . . .	32
III. DESIGN OF THE STUDY . . . . .	34
Population. . . . .	35
Selection of participants . . . . .	37
Description of communities. . . . .	38
Instrument. . . . .	40
Design. . . . .	41
Hypotheses. . . . .	43
Method of instruction . . . . .	44
Data Analysis Procedure . . . . .	48
Summary . . . . .	49
IV. ANALYSIS OF DATA. . . . .	50
Summary . . . . .	60

## TABLE OF CONTENTS (Cont'd.)

### CHAPTER

	Page
V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS. . . . .	62
Conclusions . . . . .	65
Implications for future research. . . . .	67
Reflections . . . . .	68

### APPENDICES

A. OPINION INVENTORY . . . . .	70
B. CURRICULUM OVERVIEW . . . . .	78
C. VARIABLE GROUPING . . . . .	97

### BIBLIOGRAPHY

## LIST OF TABLES

TABLE		Page
3.1	Participant classification. . . . .	36
3.2	Variables for subgroup assignments. . . . .	42
4.1	Analysis of variance table for personnel participating in in-service . . . . .	51
4.2	Analysis of covariance table for participants by geographic locations . . . . .	52
4.2.1	Duncan's multiple range test for variable score . . . . .	53
4.2.2	t-test results for between-subject comparisons. . . . .	55
4.3	Analysis of covariance table of participants by years of teaching experience . . . . .	57
4.4	Analysis of covariance table of participants by sex. . . . .	58
4.5	Analysis of covariance table of participants by grade level teaching assignments . . . . .	59

## CHAPTER I

### INTRODUCTION

A growing need in education for the adoption of in-service programs surfaced during the past decade. Staff development assumed a priority position in every agency or organization which had the task of preparing, employing, and retraining educational personnel. More federal monies than ever before were allocated to these activities. Rarely was there a conference without one or more sessions being directed to the topic of in-service education.

Special education was in the midst of these efforts to develop better in-service programs. This was due partly to choice, but, probably just as much was a result of the impact of Public Law 94-142, the Education for All Handicapped Children Act of 1975.<sup>1</sup> The Act mandated that education be provided to the handicapped in the least restrictive environment. This, in turn, led to the return to the regular classroom of many children who had handicaps and prevented others from being placed in special classrooms. Additionally, there was a shift in accountability for education of the handicapped from the special education teacher to the regular classroom teacher. The

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<sup>1</sup>

United States Congress, Public Law 94-142. (Washington: U. S. Government Printing Office, 1975.)

shift brought about the realization that regular teachers needed assistance if they were to successfully accommodate students with handicaps in their classrooms. Teachers needed skills in adapting instructional techniques. Additionally, many teachers had negative attitudes toward special students. The fact is, many teachers selected regular education because they had no desire to work with handicapped children. Therefore, in-service education for the regular educator had to address instructional accommodation and teacher acceptance of handicapped students.

The interface between regular and special education teachers and the assuming of shared responsibility for the total program of the handicapped child were considered crucial for successful programming in the least restrictive environment. Unfortunately, there were many obstacles which prevented this needed team effort from becoming a reality.

There were many teachers, both in special and regular education who were not pleased with their educational marriage. Some special education teachers, and administrators, feared that the gains made on behalf of handicapped children during the past would be wiped out, and they "were not happy about the drastic changes their own accustomed professional approaches would have to undergo".<sup>2</sup>

There was also resistance among regular classroom teachers. Research indicated that an overwhelming majority of teachers felt that they were ill-equipped to deal with the handicapped child in their classrooms. Students suggested that "....regular class teachers

harbored generally negative attitudes, and their instructional practices were not totally geared toward accommodating children whose ability levels and needs were widely discrepant from those of the majority of pupils in their classes".<sup>3</sup>

Rice listed the following teacher related problems seen by administrators as obstacles in the path of mainstreaming: 1, a general lack of the necessary instructional skills; 2, teacher unwillingness to accept the handicapped child; 3, organizational barriers created by unions and contracts; and, 4, insufficient specialist staff.<sup>4</sup>

There have been some concerns expressed about the attitudes, fears, anxieties and possible overt rejection which may have faced handicapped children, not just from their schoolmates, but, from the adults in the schools. Experiences influence attitudes, and adults, for the most part, have had little exposure to disabled persons. Historically, teacher preparation for work with the handicapped has focused on curricula and methodology. "Little has been done to prepare teachers to understand the thoughts and feelings that may arise within themselves in response to the issues of disability."<sup>5</sup>

There was growing concern over the plight of the regular classroom

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<sup>3</sup>  
Reginald L. Jones, et al., "Evaluating Mainstreaming Programs: Models, Caveats, Consideration and Guidelines." Exceptional Children, 44, 8, p. 594.

<sup>4</sup>  
John P. Rice, An Interstate Consortium of Directors of Special Education Confront the Problems of Mainstreaming, ed. Phil Mann, Shared Responsibility for Handicapped Students: Advocacy and Programming. Coral Gables, Florida: University of Miami, 1976. p. 513.

<sup>5</sup>  
Mary Schliefer, "The Teacher and Mainstreaming", The Exceptional Parent, October, 1978, p. 3.

teacher who may have completed additional coursework toward certification or an advanced degree, but, who had received no preparation to instruct handicapped children. Regular teachers would need to rely on special teachers for both information and consultation. Special teachers must also reference the characteristics of the handicapped children they teach and must follow the goals and curriculum of the regular program for mainstreamed students with individual modifications according to the handicaps. Finally, because of the implementation of Public Law 94-142, more individuals with handicaps would be participating in the regular physical education program. The law included physical education and was the only curriculum area so defined. Therefore, it often became the first area where handicapped students were scheduled to participate in the regular class activities and mainly with limited or no supportive services.

#### Statement of problem

The question existed, "how can the process of educating the handicapped child in the least restrictive environment be successfully implemented"? Teachers and administrators have requested guidelines to appropriately accommodate the handicapped students in regular classes. The intent of Public Law 94-142 was that all teachers be given the training necessary to help them to educate these children with varying educational needs.

In-service programs which provide practical experiences in working with handicapped children and youth may assist teachers in gaining those skills required to meet social, emotional and academic needs.



However, most teachers have been provided very little opportunity to gain such skills in many in-service programs and therefore, were unprepared to accept additional educational responsibility.

### Purpose

The purpose of this study was to examine the impact of a professional development in-service program for regular, special education and physical education teachers, in three settings: rural, suburban, and urban. Additionally, these educators had various grade level assignments. The activity was designed to improve and/or change their attitudes toward handicapped persons, increase their knowledge of the needs of the handicapped and give them the basic skills training necessary for providing more effective education for this population, through the type of in-service activity offered. This study evolved as a direct result of the passage of the Education for All Handicapped Children Act of 1975, Public Law 94-142, which became effective November 29, 1975. The Act mandated that education be provided to the handicapped in the least restrictive environment.

Due to the passage of this Act and because of the trend in special education toward mainstreaming, or integrating handicapped students into general education programs wherever feasible, it became increasingly necessary for regular class teachers and physical education teachers, as well as special education teachers, to become involved in the educational planning for handicapped students. Since the vast majority of regular and physical education teachers have not had training or experience dealing with the handicapped population they

lacked knowledge of the educational needs of this unique group.

One of the major justifications for studying attitudes toward this group of people was to begin to bring about changes in attitudes. Several points emerged with respect to attitude change. First, it appeared that bringing about significant positive change in attitudes would not be a simple matter. The research indicated that rather direct, well-organized procedures were required. Mere exposure to or telling people about handicapped students has not been sufficient.

Effective mainstreaming required skills and knowledge different from those many teachers have previously acquired in either pre-service<sup>6</sup> or in-service training. Many special education teachers majored in one type of handicapping condition in their training program. Therefore, many may be competent in their chosen area of study and lost in others. Additionally, many special education teachers worked with approximately 15 students in a self-contained class often with the assistance of a paraprofessional. A regular class teacher had the task of facing a larger class, often more diverse in abilities and educational needs. Special educators and regular educators recognized the need to expand their skills if they were to effectively implement a mainstreaming strategy. A balance was needed which represented, and respected with sensitivity, the needs of both groups.

Public Law 94-142 recognized the need for providing in-service training to regular and special educators in Sections 613 (a) (3), and 614 (a) (1) (i), which state:

Section 613 (a) (c), Public Law 94-142 (3) set forth, consistent with the purposes of this Act,

a description of programs and procedures for (A) the development and implementation of a comprehensive system of personnel development which shall include the in-service training of general and special educational instructional and support personnel, detailed procedures to assure that all personnel, necessary to carry out the purposes of this Act are appropriately and adequately prepared and trained, and effective procedures for acquiring and disseminating to teachers and administrators of programs for handicapped children significant information derived from educational research, demonstration, and similar projects, and (B) adapting, where appropriate, promising educational practices and materials development through such projects:.....

Section 614 (a) (1) (c) (i), Public Law 94-142 (c) establish a goal of providing full educational opportunities to all handicapped children, including.....(i) procedures for the implementation and use of the comprehensive system of personnel development established by the State education agency under section 613 (a) (c):.....7

The National Education Association (NEA), after a study of the impact of Public Law 94-142 on the public schools, recommended:

State departments of education, intermediate education agencies, where established, local school systems, teacher organizations, and teacher education institutions---work together to develop pre-service and in-service teacher education courses in special education that are of clear practical value and relevant to school and classroom realities. Such courses should not be confined to academic theory, but, shall include field experience and opportunities to discuss the experience with colleagues, practitioners in the field, and instructors. The programs should also include assistance in shaping attitudes and sensitivities that will enable teachers to overcome prejudices and

fears and to relate more openly and effectively with handicapped persons.<sup>8</sup>

### Research Question

The following research question represented the primary thrust of the research: "Does participation in a university developed in-service class result in participants demonstrating a more positive attitude toward handicapped children and youth as measured by Baker's Mainstreaming Inventory and Attitudes Toward Disabled Persons Scale (ATDP)?"

### Hypotheses

The following hypotheses were generated in order to respond to the research question:

H<sub>0</sub> 1 - There are no significant differences in the attitudes toward mainstreaming between regular class, special education and physical education teachers as a result of their participation in an in-service program.

H<sub>0</sub> 2 - There are no significant differences in the attitudes toward mainstreaming between rural, urban and suburban teachers who participated in an in-service program.

H<sub>0</sub>3 - There are no significant differences in attitudes toward mainstreaming of participants in an in-service program based upon years of teaching experience.

H<sub>0</sub>4 - There are no significant differences in the attitudes toward mainstreaming of male and female participants in an in-service program.

H<sub>0</sub>5 - There are no significant differences in the attitudes toward mainstreaming of participants in an in-service program based upon grade level teaching assignments.

#### Limitations of study

This study cannot be generalized beyond this population.

Administrators and other resource personnel participated in the in-service but were not included in the data analysis.

Much of the course was cognitive with twenty-eight per cent of the course dealing with the affective, the area under study for research purposes.

Participation in the course was mandated in some locations where it was offered and voluntary in others.

Team teaching was a planned part of the in-service. However, internal changes were necessary which were not planned.

### Assumptions

The participants would be self-motivated.

The teachers who participated would do so conscientiously for professional improvement.

The participants who responded to the opinion inventory would do so with honesty and sincerity.

The instrument accurately measured that portion of the course content which focused on affective issues.

A strong relationship existed between the instrument and course content.

### Definition of terms

Attitude- An emotional belief, usually based upon value judgment and expectation of an individual or group.

In-service - A planned sequence of developmental learning experiences.

A total program developed to meet targeted goals with each individual component designed to meet a specific objective.

Mainstreaming - Enrolling and teaching exceptional children in regular classes for the majority of the school day under the charge of the regular class teacher, and assuring that the exceptional child receives special education of high quality to the extent it is needed during the time it is needed.

Perception - An insight or intuitive judgment that implies discernment of fact or truth.

Program - Any prearranged plan or course of proceedings.

Physical education - the development of: (a) physical and motor fitness; (b) fundamental motor skills and patterns, and, (c) skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports). The term includes special physical education, adapted physical education, movement education, and motor development.

Regular education - The educational program generally offered by a local school district to the majority of the students.

Resource personnel - The professional and instructional staff which provide support services for other staff and students. These may include school psychologist, school nurse, social worker, occupational therapist, physical therapist, speech and hearing clinicians and other selected services personnel.

Rural - The geographical area distinguished from the city or town by its farming and/or agricultural characteristics.

Special education - Specially designed instruction, at no cost to the parents, to meet the unique needs of a handicapped child, including classroom instruction, instruction in physical education, home instruction and instruction in hospitals and institutions. The term includes speech pathology or any other related services and vocational education.

Suburban - The geographical area adjacent to a city; the outskirts and outlying residential districts frequently encompassing the rural and urban.

Urban - The geographic area constituting a city.

### Overview

Chapter I serves as an introduction to the study and presents a statement of the problem and the purpose of the study, as well as factors contributing to the need for this research and its significance, and definitions of terms used in this research.

Chapter II contains a review of the literature used in this study and its relationship to the research.

Chapter III outlines the methodology employed and the various procedures of the study. The population and sample is defined, the design, instrumentation and methodology are explained, and the statistical procedure employed in the analysis of the data.

Chapter IV contains the research data and the results of the analysis of the data.

Chapter V is a summary of the study and a discussion of the conclusions drawn from the findings from the analysis of the data.



## CHAPTER II

### REVIEW OF LITERATURE

A select review of the literature concerning attitudes toward the handicapped and knowledge and understanding of handicapping conditions during the past decade indicated a growing number of studies as interest in these areas grew.

The review of related literature was organized under major headings as shown: 1, Impact of in-service programs; 2, Mainstreaming in-services for Public Law 94-142; 3, In-service models; 4, In-services affecting attitudes, knowledge and skills; and, 5, Staff development in-services.

Impact of In-service Programs. Reynolds and Birch, after reviewing the literature on in-service education and mainstreaming, concluded that in-service training of regular educators must be given priority status if regular educators are to be expected to accept the increased responsibilities attendant upon the placement of handicapped children in their classes. Furthermore, they advised that such in-service be provided with deliberate speed because the reeducation of veteran teachers is not keeping pace with efforts to place exceptional children in regular rooms.<sup>1</sup>

Recognizing the magnitude of the need for meaningful in-service,

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<sup>1</sup>  
Maynard C. Reynolds and Jack W. Birch. Teaching Exceptional Children in All America's Schools - A First Course for Teachers and Principals. Reston: The Council For Exceptional Children, 1977. p. 697.

the Bureau of Education for the Handicapped established in-service training as a national priority. The Council for Exceptional Children (CEC) and the National In-service Network (NIN) at Indiana University<sup>2</sup> published a compilation of in-service projects. Initially concerned with the shortterm objective of increasing the capacity of individual projects to succeed, the long-term goal of NIN is to create a structure for providing an information base, developing successful strategies, and sharing learnings and resources with the entire universe of potential users.

Fiorentino reported that a shortterm in-service program for forty-six elementary teachers contributed to significant positive attitude changes toward mainstreaming. However, knowledge gains were only shown for the dimension of the study related to the mentally retarded.<sup>3</sup>

Upon investigation of a study by Singleton, two teacher training methods were examined for their effectiveness in increasing positive attitudes of regular class elementary teachers toward mainstreaming of learning disabled and emotionally disturbed children. The two methods<sup>4</sup> observed were in-service workshops and direct assistance in the class.

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<sup>2</sup> Leonard C. Burrello et al. "Training all educators to better serve handicapped children", Education Unlimited, June, 1979, p. 37.

<sup>3</sup> Michael Fiorentino. A Study of the Effects of a Shortterm In-service Education Program on Regular Classroom Teachers' Attitudes Towards and Knowledge of Mainstreaming. Unpublished doctoral dissertation, University of Massachusetts, 1978, p. 116.

<sup>4</sup> Karin Singleton. The Role of the Resource Specialist in Increasing Positive Attitudes Toward Having Individuals with Special Needs Enrolled in Regular Classrooms. Final Report. Culver City Unified Schools, California, June, 1976, p. 28.

In a faculty-controlled in-service training model of three-hundred ninety faculty members, Mortz found that the control group showed significantly more positive attitudes toward placement of the handicapped than did the experimental group. Also, in a study involving forty-eight mainstream teachers, a six-week in-service training and a ten-week followup program were effective in modifying the perceived needs of the teachers for improvement but training was not effective<sup>5</sup> in modifying attitudes toward handicapped children.

There is a universal fear of the unknown and this was especially true with educators who had no previous experience with those students labeled mentally retarded or handicapped. Lacking some concrete knowledge of what to expect when these students were placed in a regular classroom, teachers tended to formulate negative attitudes toward them. While there was some question about the effectiveness of a shortterm in-service program, cumulative studies indicated that training over an extended period of time was effective. There can be on-going training at the school site, follow-up sessions to previously held in-services and long-term involvement in a course extending over one or several semesters. In-service education cannot be viewed as a "cure all" because of the problems inherent in their effectiveness, the appropriateness of delivery systems and evaluations. There is, however, an apparent need for meaningful staff development programs which address the specific needs of the staff. Recognition of this aspect of in-service has significant implications for institutions of higher

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D. M. J. Mortz, Sister Mary Eileen. An Investigation of a Faculty Controlled In-service Training Model on Attitudes and Knowledge Related to Handicapped Children in Regular Classrooms. Unpublished doctoral dissertation. University of Kansas, 1977. 159 pp.

education. Teachers often view in-service as merely a lot of separate activities without any continuity to them. While there is widespread agreement regarding the potential of in-service training, within the literature critics have described in-service as impractical, rigid in format, insensitive, uncoordinated, lacking continuity, unsystematic, irrelevant, misguided, lacking a conceptual framework, unrealistic, narrowly conceived, unrelated, pretentious, unsequenced, and without basis in learning theory. Education today is faced with a dilemma. On the one hand, there is what appears to be overwhelming support for the principle of in-service. Many teachers support in-service in principle. The fault lies in the relevancy of the in-service to meet the perceived needs of the teachers. In this criticism the teachers are also among the most vocal. There is a need to bridge this gap between principle and practice.

If regular class teachers, physical education teachers, and special education teachers are to occupy roles associated with the mainstreaming process, in-services must provide opportunities for them to develop the knowledge, skills and attitudes which are necessary to effect the mainstreaming of handicapped students. There are certain competencies which these teachers must possess if they are to work effectively with handicapped students.

Although there is agreement concerning the need for in-service, there is little agreement on how it should be planned, implemented, and evaluated. It is recognized that in-services are necessary and essential to any major educational reform such as mainstreaming. The delivery system of such an intervention is where the problem lies.

New delivery systems must be developed, much the same as the model described in this study and interdisciplinary teams must prepare change agents and resource personnel skilled in helping teachers modify their teaching strategies.

Mainstreaming In-service for Public Law 94-142. Since the passage of Public Law 94-142, a significant portion of the educational literature has dealt with mainstreaming. Mainstreaming, the "inaccurate code name"<sup>6</sup> given to the concept of the least restrictive appropriate educational placement of handicapped children, was no longer merely a goal of special education. It became a mandate of law and, as such, was the force behind much of today's furor in both special education and regular education. Mainstreaming was the most significant and pervasive major legal development in the 1970's in that it extended the principle of equal rights to handicapped children and affected every aspect and level of public education.

To say that mainstreaming has created problems for physical as well as regular and special education would be a gross understatement. Although it has been fifteen years since Dunn questioned the appropriateness of special class placement for mildly handicapped youngsters,<sup>7</sup> the climate for acceptance of mainstreaming has changed little. Indeed there is some indication that resistance to integration of handicapped children into regular programs has become more widespread as unforeseen

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Ann P. Turnbull and H. Rutherford Turnbull, Free Appropriate Public Education: Law and Implementation. (Denver: Love Publishing Company, 1978) p. 62.

7

Lloyd M. Dunn, "Special education for the mildly retarded—is much of it justifiable?" Exceptional Children, September, 1968, p. 6.

problems surfaced to bewilder administrators and teachers alike. Much of the discontent stemmed from fear and a lack of clarification of the responsibilities of and competencies needed by physical education, regular class and special education teachers and personnel. The school administrator is the key to success in mainstreaming as he or she can provide support and encouragement instead of stumbling blocks and indecision. For mainstreaming to be effective, retraining needs of educational administrators must be given high priority.

Mainstreaming provides integrated special education for handicapped children in regular classes rather than in special classes or schools. An assertion is made that mainstreaming can be accomplished successfully only if, among other things, the teachers with whom these children come in contact understand and accept them.<sup>8</sup> Haring reported that regular teachers in four integrated schools who attended fifteen lecture-discussion sessions showed increased knowledge about handicapped children at the end of the course as compared with their level at the start of the course.

Teachers who participated in a university conducted workshop, practicums, and seminars during the academic year, endorsed mainstreaming more than teachers who did not participate in the training program. Though there is ample evidence to indicate that throughout our nation all states are attempting to implement the concept of mainstreaming, there is little agreement on how to best implement it, and as a result there are relatively few carefully organized programs to provide this

system of delivery. Major concerns focus on staffing patterns, teacher attitudes and preparedness and curriculum.

If mainstreaming is to fulfill its destiny the school must give serious consideration to the fears, concerns and training needs of the teachers and administrators. Educational administrators will need to develop additional competencies in the business and financial aspects of education in addition to the knowledge and skills related to mainstreaming. In a survey done on the objectives and competencies which received the most attention in teacher education programs for mainstreaming, the findings were organized around these topics: nature of mainstreaming; nature of the handicapped; attitudes; resources; teaching techniques; learning environment; learning styles; classroom management; curriculum; communication; assessments of student research;<sup>9</sup> evaluation of student progress; and administration. Although there is abundant evidence that educators have advanced since the passage of Public Law 94-142, there is little doubt that much more training is needed. Many options are available, but all alternatives require the cooperative efforts of school districts and university personnel, the support of top level university and school district administration, and continuous research and evaluation.

In-service Models. A number of in-service models have been designed to aid school administrators and staff in performing more effectively in the implementation of Public Law 94-142. Modules have been designed to develop awareness about handicapped persons and about the requirements of the law. In addition, skill building has been the

focus of some in-service efforts. Additionally, content oriented in-service has sought to develop and disseminate curriculum packages.

A variety of systems and materials to assist in the training of regular teachers in many of the mentioned domains have become available. The LOFT (Learning Opportunities For Teachers) was developed by Barry and Susan Dollar and associates in the Houston School System; TTP (Teacher Training Program) was developed by Hafner, Parks and others of the Texas Regional Service Agency XIII (Austin, Texas); and special compendiums of training materials have been developed at the University of Northern Colorado. The Leadership Training Institute (LTI) at the University of Minnesota has developed substantial literature on mainstreaming topics available for use in the in-service education of school staff.

An in-service training model was developed at Drake University which served as a guide to implementing a 2-day workshop designed to enhance administrators and classroom teachers' awareness and understanding of Public Law 94-142. The activities included:

1. Rights of students and clarification of teaching values through self awareness.
2. Introduction to individual attributes, small group activities and focus on handicapped individuals.
3. Discussion of Public Law 94-142 and the least restrictive environment (LRE) component of the law.
4. Understanding of and attitudes toward serving the handicapped in a regular classroom setting.



# 5. Actual design of a least restrictive environment.

Archibald developed a manual as a general guide for setting up and providing specific materials and activities for mainstreaming in-service programs. Teacher competencies related to mainstreaming were discussed in terms of attitudes, knowledge, and skills. Aspects of in-service program administration examined included who presented the program, what is presented, and what materials should be utilized. Eight specific program activities were described. They covered the following facets of mainstreaming:

1. profiling the handicapped learner.
2. learning style and informal diagnosis.
3. prescriptive teaching.
4. evaluating the mainstreamed learner.
5. accommodation in the regular classroom.
6. district-wide special education.
7. how it feels to have a handicap.
8. procedures for the integration of handicapped students.
9. program evaluation.

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Binkley et al., members of the System Wide Itinerant Resource

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 11

Karen Ford and Lloyd Stjernberg, Meeting the least restrictive environment challenge: Preliminary considerations for educators. An In-service training package. Drake University, 1979. 206 pp.

12

David Archibald, Mainstreaming: A Practical Teacher In-Service Manual to Get from Here to There. Neshaminy School District. Langhorne, Pennsylvania, 1978. 67 pp.

13

Betty Binkley et al., In-Service Training for General Education Teachers in Compliance with Public Law 94-142 Under the Tennessee State Plan. Memphis, Tennessee, 1978.

Teacher (SWIRT) team, described and analyzed the in-service training for general education teachers under the Tennessee State Plan. The unique qualities of the Memphis City Schools' In-service training program were detailed. These were the eight training objectives:

1. to understand the purpose, main provisions and implications of Public Law 94-142.
2. to understand the criteria defining free, appropriate education.
3. to learn the due process requirements and procedures.
4. to learn appropriate procedures for assessment and management of school records.
5. to understand the components of an individualized educational program (IEP).
6. to develop skills for designing IEP's.
7. to become more receptive to the requirements and implications of Public Law 94-142.
8. to become familiar with different materials and methods used in teaching the handicapped.

Practicing teachers and administrators have turned to a variety of in-service training activities to obtain new competencies necessary for delivery services to expanded audiences. These in-service activities were not intended to replace the need to prepare personnel in degree-granting programs, but were the developmental learning experiences of professionals.

Researchers in in-service education should consider using the model promulgated by Cronbach and Snow<sup>14</sup> which considered content, situational, and participant contingency variables in determining the efficacy of in-service programs. The application of this model would

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14

Lee Joseph Cronbach and Richard E. Snow, Aptitudes and instructional method: A handbook for research on interactions. (New York: Irvington Press, 1977).

permit the identification of complex relationships among the characteristics which participants possess, the context wherein the characteristics exist, the content presented in the in-service, the type of experience provided, and the characteristics of the leaders.

Impact of In-service on Attitudes, Knowledge and Skills. The attitudes of educators are critical to consider before placing handicapped children in regular classrooms. Attitudes are charged by many human and environmental factors, some of which are predictable and some that elude explanation. In any case, the changing scene of pedagogy makes it imperative that educators understand the prevailing beliefs and values they and their colleagues hold before and during mainstreaming.

Fine, in considering the attitudes of teachers, expressed concern<sup>15</sup> over the relationship between attitudes and behavior. This concern stemmed from an investigation of the attitudes of elementary special and regular class teachers. He found that not only did special class teachers place greater emphasis on personal and social adjustment than did the regular teachers, but they also made fewer demands upon lower ability students to try harder. Schmidt and Nelson reported the same<sup>16</sup> results with secondary level teachers. In-service programs and models must focus on the attitudinal and feeling aspects of teachers and administrators as well as on skills and competencies. Exploring

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<sup>15</sup>

Marvin J. Fine, "Attitudes of regular and special class teachers toward the educable mentally retarded child." Exceptional Children, 1967, 33, p. 429.

<sup>16</sup>

Calvin C. Nelson and Leo J. Schmidt, "Forum: The question of the efficacy of special classes." Exceptional Children, 1971, 37, p. 381.

attitudes and feelings in teacher education is of equal importance to acquiring a body of knowledge and skills; attitudes and feelings affect the teaching-learning process and the delivery of education in the classroom.<sup>17</sup>

Data gathered on one-hundred forty-three regular classroom teachers on the effects of an in-service program in mainstreaming on attitudes towards exceptional children and self-concept indicated that participants scored more like special education teachers in attitude and self-concept, with their mean attitudinal scales higher than those of the special education teachers.<sup>18</sup> This unexpected phenomenon could be the result of the special education teachers having had complete control over the education of the students and feeling comfortable with the programs so that their attitudes tended to become more normal towards them. Regular education teachers may have reflected in their responses more empathy which could be interpreted to mean more positive attitudes.

In a description of the development and validation of simulation-based in-service materials designed to positively change the attitudes of regular elementary teachers toward mainstreamed handicapped children, the results of pre and posttest comparisons on attitudes toward mainstreaming indicated that the teachers scored significantly higher

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17

Sylvia Hibbler Ingram, An assessment of regular classroom teachers' attitudes toward exceptional children subsequent to training in mainstreaming. University of Michigan, 1976. 165 pp.

18

Andrea Carroll and Joseph Purdy, In-service program development to assist teachers to effectively service students with exceptional needs in the mainstream. California State Department of Education, 1977.

than the control group on a measure of the effects of mainstreaming on the teacher. This indicated a need to continue development and research of simulation-based teacher in-service materials within a framework of comprehensive staff development.<sup>19</sup>

Harasymiw and Horne investigated the effects of an in-service education program on one-hundred ninety-one classroom teachers' attitudes toward the handicapped student. A 52-item questionnaire was developed to compare the responses of teachers who had participated in a planned program of integration with those of one-hundred sixty-one teachers who had not. The experimental group was significantly more favorable towards integration, their assessment of responsibility for this educational procedure, and feelings about the manageability of various special needs of students. Teachers' assessment of degree of manageability of needs of special students was similar in hierarchical order for both groups. No significant differences were present in the teachers' acceptance attitudes toward student disabilities.<sup>20</sup>

These studies indicated that the knowledge and skills needed by both the regular class teacher and the special class teacher are not only related, but are almost identical. With the exception of the special class teacher's need to relinquish control over the education of the handicapped and the regular class teacher's corresponding need to accept partial responsibility for that education, the skill areas

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<sup>19</sup>

Carroll *ibid.*, p. 17.

<sup>20</sup>

Stefan J. Harasymiw and Marcia D. Horne, "Teacher attitudes toward handicapped children and regular class integration." Journal of Special Education, v. 10, 4, p. 395.

surfacing as essential to both regular class and special class teachers included assessment, diagnosis, prescription, analysis, motivation, behavior management, communication, evaluation and human relations. A recognition of the similarity of training needs of regular class and special education personnel raised questions as to whether there should be separate training programs or whether one integrated teacher education program would be more effective. Although the issues were raised, no definitive answers are yet available. Attention will perhaps be given to these questions in future research.

Staff Development. A basic component of Public Law 94-142 was the development of a comprehensive system of personnel development. In-service training programs for professional personnel should be based on specific weaknesses of the individuals as well as their perceived needs. Recent federal mandates contributed to a changing role for special class teachers. This new role confronted principals and other administrators with the situation of mainstreaming handicapped children.

Overline's survey of two-hundred sixty-four regular class teachers, principals and special class teachers indicated that subjects had positive attitudes toward mainstreaming all categories of handicapped children and that principals held significantly more positive attitudes<sup>21</sup> than teachers toward children with handicaps. A classic study by<sup>22</sup> Haring, Stern and Cruickshank indicated that in-service workshops resulted in more positive attitudes.

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<sup>21</sup>

Herbert Overline, "Mainstreaming—Making it happen," Sacramento: California State Department of Education, 1977.

<sup>22</sup>

Haring, et al., *ibid.*

In March, 1974, a consortium of directors of special education at the University of Miami identified four main obstacles to a school in attempting mainstreaming: (a) attitudes of regular teachers toward handicapped students, (b) attitudes and willingness of general administrators, (c) lack of fiscal resources, and (d) insufficient

<sup>23</sup> specialist staff. In a later study, Fitzpatrick and Beavers suggested that the attitudes of principals were reflected by the attitudes of <sup>24</sup> their teachers. Of major importance was the lack of knowledge on the part of principals concerning handicapped students. It appeared that major emphasis must be placed on educating principals by teacher trainers and the in-service leaders. Because the principal is the school's gatekeeper, mainstreaming has a poorer chance of success if the principal is not knowledgeable about the educational needs of the children to be managed.

Shotel, Iano and McGettigan noted that regular elementary teachers were generally resentful and negative about the placement of handicapped children in their classes partly because they had not been trained to work with special needs students. They did little to integrate the handicapped child nor did they alter their own instructional strategies to accommodate the educational needs that are discrepant from those of

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23

John P. Rice, An Interstate Consortium of Directors of Special Education Confront the Problems of Mainstreaming, ed. Phil Mann, Shared Responsibility for Handicapped Students: Advocacy and Programming. Coral Gables, Florida: University of Miami, 1976.

24

John Fitzpatrick and Allen Beavers, Mainstreaming and the Handicapped: Teacher, administrator, and community attitudes. Paper presented at the Annual Meeting of the American Educational Research Association (Toronto, Ontario, Canada). March, 1978. 20 pp.

the majority of the students in their classes.

An in-service training program at Jackson State University was designed as a mini-course to prepare educational personnel for teaching mainstreamed handicapped children. The instructional design followed a diagnostic, prescriptive, teaching-involvement, evaluation approach. At the end of the two-week, 48-hour instructional period, a posttest assessment of the participants' attitudes showed that their attitudes were more favorable toward the handicapped.

The in-service training needs of regular classroom teachers can be met by in-service courses. When considering any in-service program, certain actions must be taken to assure success. While planning the objectives of the program, the needs of the teachers must be assessed. King, Hayes and Newman examined over one-thousand in-service programs and found that the successful ones made a concerted effort to direct their objectives toward local needs or problems.

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Jay R. Shotel, Richard P. Iano, and James F. McGettigan, "Teacher attitudes associated with the integration of handicapped children," Exceptional Children, 1972, 38, p. 683.

26

Ruben Gentry, The Mini-Course: A Delivery Approach for Training In-Service Personnel in the Education of the Handicapped. Paper presented at the Annual International Convention. The Council for Exceptional Children (57th, Dallas, Texas). April, 1979. 14 pp.

27

Larry Hodges and Robert Hodges, "Schools of education and in-service training of teachers." Educational Technology, 1975, 15, p. 60.

28

James King, Paul Hayes and Isadore Newman, "Some requirements for successful in-service education." Phi Delta Kappan, 1977, 58. p. 687.



The appropriate implementation of Public Law 94-142 required the regular class teacher and the special class teacher to combine their efforts. The law required that handicapped children be educated in the least restrictive environment. For many handicapped children the least restrictive environment is the regular classroom. Moreover, the mainstreaming movement stressed the need to educate the handicapped students in settings with their nonhandicapped peers. In fact, the law aimed to increase the involvement of the regular class teacher in the instructional program of handicapped students. Many regular class teachers needed additional training in order to work effectively with handicapped children and in-service was the medium for delivering this training.

As a direct result of the passage of the Mandatory Special Education Act of Michigan (Public Act 198) a study was undertaken in Oakland County, Michigan. The purpose was to provide a professional development seminar for school counselors designed to change their attitudes toward disabled persons, increase their knowledge of the needs of the handicapped, and give them the basic training necessary for providing more effective guidance and counseling services for that population. As a result of the effectiveness of the seminar significant gains were made by participants in all three areas studied.

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Attitudes being a prime factor in the success of the mainstreaming movement, the investigation by McDaniel<sup>30</sup> sought to examine preservice and in-service programs to determine which was more effective in positively changing the attitudes of vocational educators toward mainstreamed handicapped students. The significance of the investigation rested in the application of these findings to the development of training programs for the modification of teacher attitudes toward the handicapped. Implications drawn from the findings of this study included the following:

First, it was possible to modify attitudes of vocational teachers and trainees toward the handicapped by means of preservice and in-service education. In-service workshops and undergraduate level vocational special needs courses were found to be most effective in modifying attitudes of vocational teachers toward the handicapped. Therefore, it is important that institutions, school districts, and state departments of education work closely with colleges and universities to develop a system of preservice and in-service education that will provide teachers with the knowledge necessary for working with handicapped students.

Second, possibly the most revealing information obtained indicated the apparent ineffectiveness of the infusion model in modifying attitudes toward the handicapped. While many states have chosen to incorporate information on handicapped individuals into existing education programs, Moorman stated that perhaps this method should be

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Lindy McDaniel, "Changing Vocational Teachers' Attitudes Toward the Handicapped". Exceptional Children, 1982, 4, 377-378.

questioned.<sup>31</sup> It has been found that information on handicapped students incorporated into existing programs has been provided, in some instances, in an unstructured, haphazard manner. Many teacher educators lack basic knowledge about handicapped persons and, therefore, cannot adequately provide the necessary information to their students. A more systematic method of infusion and intensive training for teacher educators might possibly alleviate this problem.

With the implementation of Public Law 94-142 and Public Law 94-482, it was evident that most teachers would be involved to some degree with handicapped children and youth. Only if those teachers possessed favorable attitudes toward the handicapped would they be able to provide the most enhancing learning environment for those special needs students.<sup>32</sup>

To facilitate the mainstreaming of handicapped students, it was imperative that teachers be knowledgeable, be well prepared, and have positive attitudes toward special needs students. How information about handicapped individuals could most effectively and efficiently be presented, thereby aiding in the modification of attitudes, should be of utmost concern to those persons responsible for the education and training of teachers. It is only through this awareness of the needs of the handicapped population that progress can be made toward providing a free and appropriate education for all students.

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31

James Moorman, "Vocational education for the handicapped: A study of attitudes." The Journal for Vocational Special Needs Education, 1980, 2, 25-26.

32

Marlys M. Mitchell, "Teacher Attitudes." The High School Journal, 1976, 59, p. 308.

Recent federal legislation marked the culmination of a decade's efforts to promote regular class placement for handicapped students. Legal, financial and social pressures made it more likely that mildly handicapped children would appear with increasing frequency in regular classes. Clearly, educators would be called on to meet new instructional and management changes and challenges. The teacher is the indispensable professional who must carry the primary responsibility for this transition. One aspect which received minimal attention, as compared to administrative and organizational concerns, was the importance of the teacher's attitude. While education in the least restrictive environment may be imposed by binding laws, the manner in which the teacher responds to the special child's needs may be a far more potent variable in ultimately determining the success of the child's regular class placement than any administrative or curriculum strategy.

### Summary

The literature that has been reviewed in this chapter forms the theoretical basis of this study. The importance of the teacher's attitude toward the handicapped student and the effect which it might have on the student led researchers to examine those variables associated with attitude formation and subsequent modification of those attitudes. Teacher attitude is influenced by many factors, such as information level, knowledge attainment, specific skill acquisition,

and contact and experience with the special needs student. The results of two studies indicated a negative correlation between the experience variable and positive attitude toward the handicapped. Numerous studies found that increased exposure to handicapped students resulted in formation of more positive attitudes. Teachers were found to be accepting of handicapped children if support from other personnel was provided. Several studies concerned with the impact of teacher attitude on programs for the handicapped showed both positive and negative results.

The apparent lack of conclusive results in defining the crucial variables affecting the development of positive attitudes toward the handicapped provided further evidence that examination of teacher attitudes is warranted. It seems reasonable to expect that the teacher's attitude toward the handicapped child would be affected by the degree of training to accommodate the handicapped learner within the regular class environment.

The study reported here was undertaken to determine whether variables such as educator role, level of education, teaching experience, and training in concepts and skills related to teaching the handicapped would affect the physical education, regular class, and special education teachers' attitude toward the handicapped.

Chapter III contains a detailed description of the research design.

## CHAPTER III

### DESIGN OF THE STUDY

This study was designed to examine the impact of a professional development in-service course for regular class, special education, and physical education teachers in three settings: rural, suburban, and urban, in improving and/or modifying their attitudes toward handicapped students.

The study evolved as a result of the passage of the Education for All Handicapped Children Act of 1975, Public Law 94-142, which became effective November 29, 1975. The Act mandated that education be provided to the handicapped in the least restrictive environment. One aspect which received minimal attention in the literature, when compared to administrative and organizational concerns, was the importance of teachers' attitudes. While education in the least restrictive environment may be imposed by binding laws, the manner in which the teachers respond to the special child's needs may be a more potent variable in ultimately determining the success of the program than any administrative or curriculum strategy. Teacher attitude reportedly has been influenced by many factors, such as information level, knowledge attainment, specific skill acquisition, and contact and experience with the special child. Public Law 94-142 required each state to develop and implement a comprehensive system of personnel development that would include preservice as well as in-service

training. Attitudes are prime factors in the success of the mainstreaming movement. This investigation sought to examine an in-service program to determine if it was effective in positively changing the attitudes of three groups of educators toward mainstreamed handicapped students.

### Population

The population consisted of 166 subjects drawn from regular class, special education and physical education teachers, administrators and resource personnel who participated in a graduate level course titled "Special Topics in Education for the Handicapped in the Common Schools". This investigation was concerned with the attitudinal changes which could be attributable to the course. Participants included teachers from four northern Illinois school districts. Table 3.1 shows the classifications of the participants.

Table 3.1. Participant Classification.

<u>Pre-test</u>		<u>Post-test</u>	
<u>GEOGRAPHIC AREA</u>		<u>GEOGRAPHIC AREA</u>	
Rural	8	Rural	8
Suburban	27	Suburban	27
Urban	48	Urban	48
	<u>n = 83</u>		<u>n = 83</u>
<u>EXPERIENCE</u>		<u>EXPERIENCE</u>	
1 - 5 years	25	1 - 5 years	25
6 - 10 years	27	6 - 10 years	26
11 - 15 years	17	11 - 15 years	21
+16 years	13	+16 years	11
	<u>n = 82</u>		<u>n = 83</u>
Unknown	1		
<u>POSITIONS</u>		<u>POSITIONS</u>	
Physical education	25	Physical education	22
Regular class	24	Regular class	27
Special education	26	Special education	26
Administrator	3	Administrator	3
Resource personnel	5	Resource personnel	5
	<u>n = 83</u>		<u>n = 83</u>
<u>SEX</u>		<u>SEX</u>	
Female	54	Female	58
Male	29	Male	25
	<u>n = 83</u>		<u>n = 83</u>
<u>ASSIGNMENTS</u>		<u>ASSIGNMENTS</u>	
Pre-School/Kindergarten		Pre-School/Kindergarten	
-6th	43	-6th	34
Middle school/Jr. High	18	Middle school/Jr. High	25
High school	7	High school	6
Other	15	Other	18
	<u>n = 83</u>		<u>n = 83</u>



### Selection of Participants

A three-phase cooperative administrative procedure was to be followed for selecting participants to be involved in the in-service. First, the school region administrators would select participants from one-third of the region's school districts for the academic year. At the end of a projected three-year cycle a group of people representing each district in the region would have participated in the project. Second, participants would be invited by the region administrators to participate in the course. Third, the districts would be encouraged to send a team of people comprised of an administrator, physical education, regular class, and special education teachers. These professionals, having demonstrated leadership qualities, would then share information with their school district colleagues at teacher institute days, local in-service workshops and seminars.

Factors surfaced which contributed to the need to adjust most of these plans. Participants migrated to the course on an open enrollment basis. This plan provided an opportunity for any person wishing to enroll in the course to do so without selectively denying enrollment to any other person. The plan also eliminated any negative reaction which might be associated with an administrator selecting some persons and not selecting others. A grant from the United States Department of Education, Office of Special Education and Rehabilitative Services, Division of Personnel Preparation made the course offering tuition-free to all participants.

Fifty-four respondents worked in suburban locations, sixteen respondents worked in rural locations and ninety-six respondents worked in urban locations. Forty-seven respondents were physical education teachers, fifty-one respondents were special education teachers, fifty-two respondents were classroom teachers, six respondents were administrators and ten respondents held other resource positions. Fifty-four respondents were males and one-hundred twelve respondents were females. Seventy-seven respondents worked in pre-schools or in Kindergarten - 6 organizations, forty-three respondents worked in middle schools or junior high schools, thirteen respondents worked in middle schools or junior high schools, thirteen respondents worked in high schools, and thirty-three respondents worked in other types of organizations. Fifty respondents had between one and five years of experience, fifty-three respondents had between six and ten years of experience, thirty-eight respondents had between eleven and fifteen years of experience, and twenty-four respondents had sixteen or more years of experience. One respondent did not answer this question.

#### Description of communities

The population was drawn from Waukegan, Illinois School District 60, Lake-McHenry Counties, Illinois Special Education Districts, and Chicago, Illinois Public Schools. The three geographic settings were identified as suburban, urban and rural. Waukegan, Illinois was an industrial community; a large consumer of labor. The population in the 1980 census was established at 65,134. It was identified as one of the major north suburban centers of employment - most of its light industry being in pharmaceuticals, chemicals and electronics. It was

the county seat of Lake county. Woodstock, Illinois, the county seat of McHenry county, had a population of 11,367. Lake and McHenry counties had foreign stock which represented over 19% of their total population. Over 5% of McHenry county's population commuted to Chicago to work. It covered an area of 611 square miles and was one of only four counties above the state average income level. The population of McHenry county covered an area of 457 square miles and had a population of 382,638. It was saturated with universities and 15% of the population commuted to Chicago to work. 12.5% of the families were above the \$25,000.00 per yearly income.

Chicago, metropolitan in every respect, contained several hundred communities in the metropolitan area and 75 of those were recognized neighborhoods in Chicago proper. The "Windy City" combined trade, manufacturing, and finance with education and fine arts. This gigantic metropolis supported several superb universities in addition to museums, art galleries, conservatories, zoological gardens and aquarium. Chicago was 2nd among U. S. metropolitan areas in number of manufacturing employees. There was a great range of socioeconomic diversity. The range was indicative of diverse racial, ethnic, and educational backgrounds of people and there was a wide variation in opportunities available to them. The estimated median family income range was \$7,500.00 annually in the inner city, to \$43,000.00 in several of the affluent northern suburban areas. Fifty-four respondents worked in suburban locations, sixteen respondents worked in rural locations, and ninety-six respondents worked in urban locations.

### Instrument

An attitude scale was used in this study (Appendix A) which was adapted from Baker's "Mainstreaming Inventory" and the Attitudes Toward Disabled Persons Scale (ATDP) Form A - Bates Modification, 1965.<sup>1</sup>

The Attitude Toward Disabled Persons Scale was reported to measure attitudes toward disabled persons in general, according to the authors. A low score on this instrument indicated that the respondent perceived disabled persons as different, while a high score indicated that the respondent perceived the disabled person as not being different. The rating was done on a five-point Likert-type scale for the 40-item inventory. The range was from 1 = strongly disagree, to 5 = strongly agree. Shaw and Wright, in their critical review of the scale, indicated that the Attitude Toward Disabled Persons Scale had better supporting data than most scales and it was recommended for research purposes.<sup>2</sup> Eight estimates of stability for the Attitude Toward Disabled Persons Scale have been reported, ranging from +.66 to .89 with a median of +.73.<sup>3</sup>

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1

Harold E. Yuker, J. R. Block and Janet H. Young. "The Measurement of Attitudes Toward Disabled Persons". Human Resources Study Number 7. Albertson, N. Y.: Human Resources Center, 1966.

2

Marvin E. Shaw and Jack M. Wright, Scales for the measurement of attitudes. (New York: McGraw-Hill Company, 1967).

3

Ibid.

### Design

The research design for this study was quasi-experimental. This design was recommended by Donald T. Campbell and Julian C. Stanley in their book Experimental and Quasi-Experimental Designs for Research.<sup>4</sup> They stated that for large populations, such as cities, factories, schools, and military units, it often happened that one would encounter difficulty in randomly segregating subgroups for differential experimental treatments. When faced with this situation, Campbell and Stanley suggested the separate-sample, pre-test, posttest design be used:

	<u>Pre-test</u>	<u>Treatment</u>	<u>Posttest</u>
R	0 1	(X)	
R		X	0 2

The use of this design allowed one to exercise something like full experimental control over the when and to whom of the "0", by employing random assignment procedures. In the above diagram, R represented randomly equivalent subgroups, the parenthetical X standing for a presentation of X irrelevant to the argument. One sample was measured prior to the X, an equivalent one subsequent to X.

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4

Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally and Company, 1966), pp. 53-54.

In order to compensate for the inability to randomly assign participants, this researcher identified those variables to be employed in placing individuals in one of the two subgroups to insure maximum consistency between groups. The factors, in their priority for assigning individuals to their subgroups, were: (1) geographic locations; (2) experience; (3) professional position; (4) sex; and, (5) school assignment by grade level.

Table 3.2. Variables for subgroup assignments.

	Location	Experience	Position	Sex	Assignment
Pre-test	83	82	83	83	83
Posttest	83	83	83	83	83
Total	166	165 1 unknown	166	166	166

(See Table 3.1 for variable classifications).

The separate-sample, pre-test, posttest design, also referred to as the split-half design, has been used in social science experiments<sup>5</sup> which remain the best studies extant in their topics. It is well to note its superiority over the ordinary before-and-after design through its control of both the main effect of testing and the interaction of testing with X. One characteristic of this design was that it moved the laboratory into the field situation to which the researcher wished to generalize, testing the effects of X in its natural setting. One reason for utilizing such a quasi-experimental design was that there

<sup>5</sup>

Ibid. p. 223.

these types of natural social settings (i.e., classrooms) in which the researcher could introduce something like experimental design into the scheduling of data collection procedures. The researcher needed also to be aware of which specific variables this particular design failed to control (i.e., history, maturation, etc.). In designing this experiment it was necessary for the researcher to make the assumption that, while not randomly assigning participants but selectively placing them into subgroups, the pre-test and posttest groups would be equal.

### Hypotheses

The following hypotheses represented the primary thrust of this research study:

- H<sub>0</sub>1 - There are no significant differences in the attitudes toward mainstreaming between regular class, special education, and physical education teachers as a result of their participation in an in-service program.
- H<sub>0</sub>2 - There are no significant differences in the attitudes toward mainstreaming between rural, suburban, and urban teachers who participated in an in-service program.
- H<sub>0</sub>3 - There are no significant differences in attitudes toward mainstreaming of participants in an in-service program based upon years of teaching experience.
- H<sub>0</sub>4 - There are no significant differences in the attitudes toward mainstreaming of male and female participants in an in-service program.

H<sub>0</sub>5 - There are no significant differences in the attitudes toward mainstreaming of participants in an in-service program based upon grade level teaching assignments.

#### Method of Instruction

The course was offered for one unit of graduate credit, a unit being the equivalent of four semester hours, at no tuition cost to the participants. Participants were required to abide by university registration procedures for enrolling and dropping the course. All registrations were facilitated in class. Course textbooks were required for the participants.

Upon registering for the course, the participants agreed to attend all class meetings with the understanding that many activities would occur in class sessions which could not be obtained in any other manner, and that those activities would assist participants in fulfilling the course requirements. Therefore, because of the nature of the project and the belief that participants would be unable to obtain valuable information if they were not in attendance, excessive absences were not allowed and would lead to a failing grade. All participants were expected to be on time for the start of the class and remain until the class was dismissed. There were fourteen class sessions during the course, accounting for approximately 42 hours of instruction.

As a graduate course in which instructors would provide advanced knowledge, students were expected to do critical thinking, in-depth



readings on several topics, investigatory assignments, and to participate in inquisitive and constructive discussions with colleagues. Accordingly, the course activities and assignments were established to promote those learning experiences for students.

Assignments were divided into:

1. Readings and self-tests
2. A survey of colleagues' attitudes
3. Fulfilling a task and role on an IEP team
4. Participation and attendance
5. Final examination

Along with the assignments, participants were requested to cooperate in assisting the project to measure attitudes and evaluate instructors, course operations, and guest speakers.

The major instructor for the course was approved to teach by the University of Illinois Graduate College and the administrative staff of the project. The instructors were assisted by educational resource specialists with expertise in special education and who had also been approved by the school personnel and the administrative staff of the project. The instructors presented regular and special education perspectives which matched the composition of the course participants.

To familiarize participants with other educational specialists in their districts and regions, and to provide participants with the most accurate and meaningful information about support services and other educational concerns, selected guest speakers delivered presentations at several course sessions. Parents of handicapped students, school psychologists, occupational therapists, learning and behaviorally disordered coordinators, and social workers represent some of the

guest speakers utilized in the project.

Class members served as members of multidisciplinary staffing teams, an individualized education program team, participated in a mainstreaming needs assessment, and were administered an opinion inventory (Appendix A). The class was designed to help school administrators, physical educators, regular class and special education teachers better understand their roles in providing equal education opportunities for all students. Discussions focused on physical education, statutory and case law influences upon the education of the handicapped, class management, and the referral, screening, evaluation, and assessment process as segments of the curriculum for the class (Appendix B).

The project staff developed the following objectives as a means of disseminating information to the course participants on the implications of Public Law 94-142, the federal mandate out of which this project evolved:

- . To better understand the various professional roles of class members; to appreciate the importance of these individual contributions and the need for professional cooperation among and between these educators to effectively and efficiently educate all students.
- . To introduce participants to the history, philosophy and goals of physical education.
- . To review the background of mainstreaming and to present information about the purposes of mainstreaming and the shared responsibility among educational professionals for mainstreaming.

- . To deliver information to participants about Public Law 94-142; Public Law 93-380; Section 504 of the Rehabilitation Act of 1973; Section 615 of Public Law 94-142; and, information on Illinois special education legislation.
- . To present information to participants about the etiology and characteristics of mentally handicapped, physically handicapped, and learning and behavior disordered students.
- . To provide an opportunity for participants to understand the importance of school personnel and student peer group attitudes that prevail in the educational setting and teacher behavior and expectations that influence student learning.
- . To inform the participants of the need for shared communication with parents in the educational planning, teaching and evaluating of handicapped children; to present information about parents' experiences as members of a family with a handicapped child; and, to present information about the anti-discrimination movement in society.
- . To present information to the participants about the referral, screening, assessment, and evaluation processes.
- . To inform participants about what professional and instructional support staff are available, for what duties, and for how much time.
- . To assist participants in understanding the IEP process
- . To inform participants about the purposes of, practice and theory in, and, implementation of classroom management techniques.

Data Analysis Procedure

For the purpose of studying the relationship between the teacher attitudes measured by the opinion inventory and other concomitant variables, analysis of covariance was utilized. An alternative approach to reducing experimental error and obtaining unbiased estimates of treatment effects involved the use of statistical control. This approach enabled the experimenter to reduce potential sources of bias from the experiment, biases that were difficult or impossible to eliminate by experimental control. The statistical control combined features of regression analysis with analysis of variance and is called analysis of covariance. It involved measuring one or more concomitant variables in addition to the dependent variable. The concomitant variable represented a source of variation that had not been controlled in the experiment and was believed to affect the dependable variable. Through analysis of covariance, the dependent variable was adjusted so as to remove the effects associated with the concomitant variable.<sup>6</sup> The concomitant variable is also called the covariate (covariable). For this study the covariables were identified as:

- participant's position
- participant's geographical area
- participant's years of experience
- participant's sex
- participant's grade level assignment

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<sup>6</sup>

Roger E. Kirk, Statistical Issues: A Reader for the Behavioral Sciences (Monterey: Brooks/Cole Publishing Company, 1972), p. 258.

In the first series of analyses only, a one way analysis of variance was used. Thereafter, two-way analysis of covariance was used for the remaining series of analyses. The test for the significance of difference was at the .05 level. When significance occurred, a series of a posteriori analyses was done. Duncan's multiple range test was used to determine the location of the significance.

### Summary

This study examined the attitudes which existed between and among regular class, physical education, and special education teachers who participated in an in-service program designed to modify attitudes. 166 subjects participated in a graduate level course on "Special Topics in Education for the Handicapped in the Common Schools". The participants were drawn from four northern Illinois school districts. An attitude scale was used in the study which was adapted from Baker's "Mainstreaming Inventory" and the Attitudes Toward Disabled Persons Scale (ATDP). The design for the research was the separate-sample, pre-test, posttest, sometimes referred to as the split-half design. Five hypotheses were tested in the investigation of teacher attitudes. The data were analyzed by a one-way analysis of variance and by an analysis of covariance.

## CHAPTER IV

### ANALYSIS OF DATA

This study examined the impact of a staff development program on the attitudes of teachers toward handicapped students. Administrators and other resource personnel also participated in the graduate course designed as an in-service activity. These two groups were not included in the analysis due to the small number of participants.

The attitudes investigated in this study were measured by the attitude scale which was adapted from Baker's Mainstreaming Inventory and the Attitudes Toward Disabled Persons Scale (ATDP) Form A - Bates Modification. Interpretations of the hypotheses were based on the scores obtained from the attitude scale.

The data analyzed in this chapter were collected from 166 teachers enrolled in an in-service training activity designed as a graduate course offering. The many components of an intensive in-service training activity were variables which could also be viewed as interactive. Each could have contributed to a more positive learning environment. Statistical procedures employed were one-way analysis of variance, analysis of covariance, a posteriori analysis, and Duncan's multiple range test.

The following research question represented the primary thrust of the research: "does participation in a university developed in-service class result in participants demonstrating a more positive attitude toward handicapped children and youth as measured by Baker's Mainstreaming Inventory and Attitude Toward Disabled Persons Scale (ATDP) Form A - Bates Modification, 1965?" The following hypotheses were generated in order to respond to the research question:

H<sub>0</sub>1 - There are no significant differences in the attitudes toward mainstreaming between regular class, special education and physical education teachers as a result of their participation in an in-service program.

Table 4.1. Analysis of variance table for personnel participating in in-service.

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio	Probability
Covariates	8280.645	1	8280.645	1.859	0.177
Personnel	10326.945	4	2581.736	0.580	0.678
Between-group	18607.625	5	3721.525	0.836	0.528
Within-group	342920.063	77	4453.504		
Total	361527.688	82	4408.871		

H<sub>0</sub>1 - There are no significant differences in the attitudes toward mainstreaming between regular class, special education, and physical education teachers as a result of their participation in an in-service program could not be rejected. F ratio was 0.58, a probability of 0.68.

Table 4.1 (con't.).

Table 4.1 illustrates the mean attitude scores obtained for the three groups of teachers in the study. An analysis of variance was conducted to determine the effect of level of in-service training on teacher attitudes. The three teacher groups were very much alike in their attitudes toward mainstreaming the handicapped. There were no main effects for teacher positions in this analysis. Educators in the various positions were affected similarly by the in-service training activity. No significant difference was attributable to an educator's work position.

$H_0^2$  - There are no significant differences in the attitudes toward mainstreaming between rural, urban, and suburban teachers who participated in an in-service training activity.

Table 4.2. Analysis of covariance table for participants by geographic locations.

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio	Probability
Covariates	8280.645	1	8280.645	1.989	0.163
Main effects	46048.949	6	7674.824	1.844	0.103
Personnel	3177.825	4	794.456	0.191	0.942
Location	35722.000	2	17861.000	*4.291	0.018
2-way interactions	24157.469	7	3451.067	0.829	0.567
Personnel x location					
Between-group	78487.063	14	5606.219	1.347	0.204
Within-group	283040.625	68	4162.359		
Total	361527.688	82	4408.871		

\*  $p < .05$



Table 4.2 (con't.).

$H_0^2$  - There are no significant differences in the attitudes toward mainstreaming between rural, urban, and suburban teachers who participated in an in-service training activity was rejected. A significant difference attributable to an educator's work location was found. F-ratio was 4.29, a probability of .02. Duncan's multiple range test was used to determine the location of the significance.

Table 4.2.1. Duncan's multiple range test for variable score.


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Alpha level = .05    Degrees of Freedom = 68    Mean Squares = 4162.36		
Location	Number of subjects	Mean
Suburban	27	144.700000
Rural	8	142.080000
Urban	48	100.090000

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Examination of Table 4.2 indicates a significant interaction effect ( $F = 4.29$ ,  $p < .02$ ). An analysis of covariance determined that there was significance in the educators' geographic work areas. Duncan's multiple range test was used to determine the location of the significance. The differences were found to be between the suburban teachers and the urban teachers. While the mean score for rural teachers was slightly less than the mean score suburban teachers, the

Table 4.2.1 (con't.).

mean score for suburban teachers was considerably greater than the mean score for urban teachers. Therefore, the suburban teachers showed a positive increase in their attitudes toward mainstreaming handicapped children.

In a further examination of statistical significance for the three groups of teachers, the results of a t-test for between-subject comparisons are shown in Table 4.2.2. The 40-item opinion inventory (Appendix A) was weighted and an eight variable grouping was used for analysis (Appendix C).

Table 4.2.2. t-test results for between-subject comparisons.

Dependent Variables	Suburban		Rural		Urban	
	Pre Mean	Post Mean	Pre Mean	Post Mean	Pre Mean	Post Mean
1. General attitudes toward the handicapped	20.1111	22.3704	22.6250	21.5000	21.3333	14.9792
2. Need for special treatment in work and education	16.4815	19.0000	19.2500	17.0000	17.3333	12.3750
3. Attitudes toward regular placement of the handicapped	19.4074	21.5926	23.8750	21.2500	20.2500	14.6042
4. Effects of mainstreaming on nonhandicapped students	13.4815	14.9630	16.6250	14.3750	14.8125	10.4167
5. Teacher confidence to teach the handicapped	23.4074	26.0370	26.6250	25.6250	25.1875	17.5625
6. Effects on social adjustment of the handicapped	22.7037	24.9259	26.5000	25.0000	24.4167	17.0208
7. Need to change teaching practices and environment	10.4444	11.4074	12.1250	9.7500	10.7500	7.4167
8. Parent reactions	5.4444	6.3333	7.1250	6.2500	6.2917	4.5417

Table 4.2.2 (con't.).

Table 4.2.2 illustrates the comparisons between the pre- and posttest mean scores for the teachers in the three geographic locations examined in this study. Pre-test scores indicated the rural teachers had the most positive attitudes of the three groups studied. Posttest scores indicated a highly significant difference in the scores of the suburban teachers and the urban teachers. The suburban group showed improved means for each of the eight variables. There was a decrease in the mean scores of the rural teachers from the pre- to the posttest. The urban group showed higher mean scores on the pre-test than did the suburban teachers and showed the most significant decrease in means on the posttest.

H<sub>0</sub> 3 - There are no significant differences in the attitudes toward mainstreaming of participants in an in-service program based upon years of teaching experience.

Table 4.3. Analysis of covariance table of participants by years of teaching experience.

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio	Probability
Covariates	5670.848	1	5670.848	1.166	0.284
Main effects	15345.961	7	2192.280	0.451	0.866
Personnel	12137.902	4	3034.476	0.624	0.647
Experience	4438.867	3	1479.622	0.304	0.822
2-way interactions	25928.207	9	2880.912	0.592	0.799
Personnel x experience					
Between-group	46945.063	17	2761.474	0.568	0.903
Within-group	311365.938	64	4865.090		
Total	358311.000	81	4423.590		

H<sub>0</sub> 3 - There are no significant differences in attitudes toward mainstreaming of participants in an in-service program based upon years of teaching experience could not be rejected. The F-ratio was .30, a probability of .82.

The difference between the attitudes of teachers based on their years of teaching experience was not significant. The analysis of covariance results in Table 4.3 support the null hypothesis that the differences between teachers of varying years of experience would not be pronounced. Teachers in the four levels of teaching experience

Table 4.3 (con't.).

held comparable attitudes toward mainstreaming handicapped students.

$H_0^4$  - There are no significant differences in the attitudes toward mainstreaming of male and female participants in an in-service program.

Table 4.4. Analysis of covariance table of participants by sex.

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio	Probability
Covariates	8280.664	1	8280.664	1.876	0.175
Main effects					
Sex	180.869	1	180.869	0.041	0.840
Between-group	8461.533	2	4230.767	0.959	0.388
Within-group	353067.889	80	4413.349		
Total	361527.688	82	4408.871		

$H_0^4$  - There are no significant differences in the attitudes toward mainstreaming of male and female participants in an in-service program could not be rejected. F ratio was .04, a probability of 0.84.

Table 4.4 provided data concerning differences in the attitudes toward mainstreaming of male and female teachers in an in-service program. There was no significant difference between the two groups. No interaction effect was present. The F-ratio of .041 was not significant.

$H_0$  5 - There are no significant differences in the attitudes toward mainstreaming of participants in an in-service program based upon grade level teaching assignments.

Table 4.5. Analysis of covariance table of participants by grade level teaching assignments.

Source of variation	Sum of Squares	Degrees of Freedom	Mean Squares	F Ratio	Probability
Covariates	8280.645	1	8280.645	1.700	0.197
Main effects	11999.117	7	1714.159	0.352	0.926
Personnel	10439.574	4	2609.894	0.536	0.710
Grade	1672.171	3	557.390	0.114	0.951
2-way interactions	14931.344	7	2133.049	0.438	0.875
Personnel x grade					
Between-group	35211.125	15	2347.408	0.482	0.942
Within-group	326316.563	67	4870.395		
Total	361527.688	82	4408.871		

$H_0$  5 - There are no significant differences in the attitudes toward mainstreaming of participants in an in-service program based upon grade level teaching assignments could not be rejected. The F-ratio was .11, a probability of 0.95.

The results of the analysis of covariance shown in Table 4.5 support the null hypothesis that there would be no significant difference in teacher attitudes based upon their grade level teaching assignments.  $F = 0.114$ ,  $p < 0.95$ . Mean scores for each of the groups were comparable.

### Summary

To facilitate the mainstreaming of handicapped students, teachers should have positive attitudes toward special needs students and they should be knowledgeable and well prepared. A one-way analysis of variance and an analysis of covariance were used to determine if the in-service activity designed as a graduate course made an impact on the attitudes of teachers toward mainstreaming and the relationship between the variables of experience, geographic teaching locations, teaching positions, sex, and teaching assignments. Duncan's multiple range test was given to identify the area of significance in the analyses where significance occurred.

Mean scores and F-ratios on the attitude scale for regular class, special education, and physical education teachers were summarized in Table 4.1. These scores were subjected to a one-way analysis of variance. No significant F-ratio was obtained. The results supported the null hypothesis that there would be no significant differences between the attitudes of these teachers.

Mean scores and F-ratios between-groups and within-groups were summarized in Table 4.2. These scores were subjected to an analysis of covariance. A significant difference attributable to a teacher's work location was found. Duncan's multiple range test for variable scores of teachers of suburban, rural, and urban locations determined that there was significance in the mean score of the urban teachers, 100.09, and that of the suburban teachers, 144.70. The mean score for the rural teachers was slightly less than that of the suburban teachers at 142.08. These results rejected the null hypothesis that there would be



no significant difference based on work locations. The variable scores are shown in Table 4.2.1. Comparisons of group differences on the eight variables are shown in Table 4.2.2.

Mean scores and F-ratios for the analysis of covariance of participants by their years of teaching experience are shown in Table 4.3. Teachers at the four levels of teaching experience showed similar attitudes toward mainstreaming and there was no significant difference in attitudes. These results failed to reject the null hypothesis that there would be no significant differences.

There were no interaction effects between the scores and the F-ratios of participants in the in-service training activity by sex. Both males and females were comparable in their attitudes, shown in the scores in Table 4.4. This failed to reject the null hypothesis that there would be no significant differences in the attitudes of teachers by sex.

In the final analysis, scores shown in Table 4.5, there were no significant differences in the scores resulting from the analysis of covariance for participants in the in-service activity by grade level teaching assignments. Teachers of varying levels from kindergarten through high school held similar attitudes toward mainstreaming special needs students. These results failed to reject the null hypothesis that there would be no significant differences.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The intent of Public Law 94-142 was to provide all teachers with the training necessary to help them to educate handicapped children with varying educational needs in the regular classroom environment.

In-service programs which provide practical experiences in working with handicapped children and youth were reportedly designed to assist teachers in gaining those skills required to meet their social, emotional and academic needs. The attitude of the teacher toward handicapped children has been identified as a critical element in providing effective educational programs for the special child when that child is placed in a regular classroom environment.

The question which directed this research was "does participation in a university developed in-service class result in participants demonstrating a more positive attitude toward handicapped children and youth as measured by Baker's Mainstreaming Inventory and Attitudes Toward Disabled Persons Scale (ATDP)?"

The data for this investigation were collected from 166 teachers enrolled in an in-service activity designed as a graduate course for physical education, special education, and regular class teachers from three diverse areas - urban, suburban, and rural.

The major objective of this study was to examine the impact of a

professional development in-service treatment on teacher attitudes toward the mainstreamed handicapped. The specific purposes were to determine if attitudinal differences existed between educators by their positions, their geographic employment, their experience, their sex, and their grade level assignments.

A review of literature relevant to in-service activities for teachers of the handicapped related the importance of the teacher's attitude toward the handicapped student and the effect which it might have on the student. The research also supported an expectation that the teacher's attitude toward the handicapped would be affected by the degree of training to accommodate the handicapped learner within the regular class environment.

The following hypotheses were tested:

- $H_0^1$  - There are no significant differences in the attitudes toward mainstreaming between regular class, special education and physical education teachers as a result of their participation in an in-service program.
- $H_0^2$  - There are no significant differences in the attitudes toward mainstreaming between rural, urban and suburban teachers who participated in an in-service program.
- $H_0^3$  - There are no significant differences in attitudes toward mainstreaming of participants in an in-service program based upon years of teaching experience.
- $H_0^4$  - There are no significant differences in the attitudes toward mainstreaming of male and female participants in an in-service program.

H<sub>0</sub><sup>5</sup> - There are no significant differences in the attitudes toward mainstreaming of participants in an in-service program based upon grade level teaching assignments.

There were no significant differences in the attitudes toward mainstreaming between regular class, special education, and physical education teachers as a result of their participation in an in-service program. The educators in the various positions were affected similarly by the in-service treatment.

The findings revealed a significant difference attributable to an educator's work location. The mean for the suburban educators differed significantly from the mean for the urban and rural group at the .05 level. This finding was important in that suburban teachers demonstrated a more positive attitude toward mainstreaming the handicapped student and toward the mainstreamed student.

The next series of analyses which investigated the influence of the educator's experience on the attitudes toward the handicapped showed no significant differences attributable to an educator's experience. The in-service affected the educators with varying degrees of experience similarly.

The data collected on the attitudes of male and female participants toward mainstreaming, after analysis, showed no significant differences between males and females toward mainstreaming the handicapped student.

The final series of analyses of the data concerning the impact of the in-service treatment on the attitudes of the educators by grade level assignments showed no significant differences attributable to an educator's grade level assignment.

### Conclusions

Several points emerged with respect to attitudes and lack of change in those attitudes. First, bringing about significant positive changes in attitudes did not occur as a result of participation in this activity. Twenty-eight percent of instructional time dedicated to affective considerations was not sufficient in improving teacher attitude. A second consideration was that the nature of the affective activities provided in the program was not of sufficient intensity or quality to improve the attitudes of the participants. There was also evidence that attitudes toward the handicapped were multidimensional and intervention procedures may differentially affect the different components of attitudes. Several studies concerned with the impact on teacher attitude of mainstreaming programs have shown both positive<sup>1</sup> and negative results.<sup>2</sup> Teacher attitude reportedly was influenced by many factors, i.e., information level, knowledge attainment, specific skill acquisition, and contact and experience with the special needs student. Teachers were said to be accepting of handicapped children if support from other resource personnel was provided.

These findings revealed a significant difference, attributable to an educator's work location. The mean for suburban educators was

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<sup>1</sup> Stefan J. Harasymiw and Marcia D. Horne, "Teacher attitudes toward handicapped children and regular class integration." Journal of Special Education, v. 10, 4, p. 395.

<sup>2</sup> Jay R. Shotel, Richard P. Iano, and James F. McGettigan, "Teacher attitudes associated with the integration of handicapped children," Exceptional Children, 1972, 38, p. 683.

significantly higher than the mean for the urban group. Being employed in a smaller and more affluent area has allowed the teacher to have access to support personnel on a daily basis, in addition to having on-going in-service activities. Budget reductions which have affected similar programs in larger cities, especially in the inner-city, have reduced the number of support personnel. School districts have been decentralized in the urban school setting and more diversity in programming has been evident, contingent upon the priorities of the local school boards and administrators. Where the need was greater for materials and supplies for the student, less money was allocated for support staff and for staff development activities. Most certainly these variables have contributed to the urban teachers being less positive in their attitudes.

This study failed to support the theory advanced by Haring, Stern, and Cruickshank<sup>3</sup> in their classic study that in-service workshops resulted in more positive attitudes. There may be a need in future in-service workshops offered by this particular project staff to develop specific training programs aimed at modifying teacher attitudes, through more intensive training and involvement with handicapped students as a part of the in-service itself.

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James Haring, George Stern and William M. Cruickshank, Attitudes of Educators Toward Exceptional Children, (Syracuse: Syracuse University Press. 1958).

Implications for future research

1. Change occurs across and in an incremental manner. Hall and Loucks related that any viable evaluation model must recognize by its very design that "change is a process, not an event". Measurement of change must, therefore, be process focused. It is recommended that a longitudinal study be conducted to determine the long range effects of continued in-service activities on attitudes.
2. Traditional approaches to evaluation of in-service have measured change in terms of knowledge, skills, or attitudes acquired at the close of the in-service program. Evaluation models should be developed which examine the extent to which whatever is learned during in-service is incorporated into classroom practice by the teacher. The recommendation, therefore, would be for a study to be done of the residual groups involved in previous years of this project as well as others.
3. Changes in affective responses to handicapped children do not accrue as a side effect from cognitively developed experiences. Researchers should consider examining the potential for reverse phenomenon.

### Reflections

The collaborative model for the class was designed by the project director during a year of field study prior to being instituted as a federally funded grant. Input from project staff and researchers was not solicited. The parameters were set prior to involvement of the research and teaching assistants, the implementers of instruction, data gathering, and the research design.

The extramural course was designed as a knowledge-to-practice offering. Many class activities were devoted to the basic knowledge necessary in planning, implementing, and evaluating programs. The personnel trained in the project had the understanding that their goals were to learn new skills, knowledge and attitudes for their own situations, as well as "learning to learn" for teaching their colleagues. The purpose was to instill new and increase positive attitudes and practices regarding the delivery of services to the handicapped student. An essential aspect of the design was to involve heterogenous groups of school personnel from various professional roles and tasks in the course. The prevalence of professional interaction occurred as the participants implemented "role study" and "role task" groups to address problems and solutions.

The calibre of instructors for the project classes was acceptable with two notable exceptions. An attempt was made to rectify this in one area by reassignment of duties by the project director. In the second case, no changes were made. An extensive staff development



training session would serve to insure that the intent of the project objectives and desirable instructional practices would result.

A greater participant commitment could evolve through the institution of fee payment, stringent attendance requirements, and stated quality of work and student performance acceptable for grading purposes.

The involvement of more administrators could demonstrate a genuine interest on the part of the school district through release time and follow-up in-services at the local school level.

Audio-visual materials and equipment to be used as a part of the class should be in place and available for use at the specified time according to class syllabus. These materials should not be utilized as "fillers" in place of substantive class sessions.

Site designations for classes should be planned in advance and posted, to eliminate constant shifting of class location, thereby losing a portion of the class in the process.

If a change in personnel is unavoidable, every effort should be made to fill the position with a staff person who is dedicated to meeting the project objectives and following through on course content and methods as outlined in course syllabus and student manual.

Coordination between staff members and offices for a project covering such a diverse geographic area should be mandated. Project office must have staff knowledgeable about the project on hand during reasonable hours to facilitate meeting the needs of the staff and course participants.

## APPENDICES

## APPENDIX A

### OPINION INVENTORY

## OPINION INVENTORY

Before completing the inventory, please fill in the background information requested below. For the first item, identification number, provide the last four digits of your social security number.

Identification Number \_\_\_\_\_

Male \_\_\_\_\_ Female \_\_\_\_\_

Years of professional teaching experience \_\_\_\_\_

Have you ever taught a special education class? Yes \_\_\_\_\_ No \_\_\_\_\_

Credentials Held: General elementary \_\_\_\_\_ General secondary \_\_\_\_\_

Special education \_\_\_\_\_ Other (specify) \_\_\_\_\_

Check highest degree: Bachelor's \_\_\_\_\_

Master's \_\_\_\_\_

Doctorate \_\_\_\_\_

Current teaching assignment:

\_\_\_\_\_ Regular class                      or                      \_\_\_\_\_ Special class

Grade level taught \_\_\_\_\_

Type of classroom (check one)

Type of classroom (check one)

LD \_\_\_\_\_ BD \_\_\_\_\_

Open - ungraded \_\_\_\_\_

EMH \_\_\_\_\_ TMH \_\_\_\_\_

Traditional single grade level \_\_\_\_\_

Regular PE \_\_\_\_\_

Traditional multi-grade level \_\_\_\_\_

Special PE \_\_\_\_\_

Other (specify) \_\_\_\_\_

Other (specify) \_\_\_\_\_

INSTRUCTIONS

1. Fill in your identification number, the last four digits of your social security number, in the spaces provided at the top of each page of the inventory.
2. This inventory consists of a set of statements about handicapped individuals, followed by a scale from "1" - strongly disagree, to "5" - strongly agree.

In all statements, the word "handicapped" refers to those students who find achievement in a school setting "unusually difficult" because of intellectual, emotional, sensory, physical, or perceptual deficits.

All persons completing this form, regardless of their actual roles in their schools, should complete the inventory as if they were assigned to a classroom teaching situation.

For each statement, please circle the number which most accurately represents your current opinion about the statement.

3. Please turn the page and begin.

		ID # _ _ _ _				
		strongly disagree	disagree	no opinion	agree	strongly agree
1.	I think that the full time special education class is the best placement for handicapped students.	1	2	3	4	5
2.	I believe that average children will profit from their contact with handicapped students.	1	2	3	4	5
3.	Handicapped students are more like normal students than they are different from them.	1	2	3	4	5
4.	It would be best if handicapped persons would live and work with nonhandicapped people.	1	2	3	4	5
5.	As with nonhandicapped students teachers should require handicapped students to share accountability for their learning.	1	2	3	4	5
6.	Having to teach handicapped pupils places an unfair burden on the majority of classroom teachers.	1	2	3	4	5
7.	Assignment of a handicapped child to a regular classroom is a wise administrative decision.	1	2	3	4	5
8.	Most handicapped persons want more affection and praise than other people.	1	2	3	4	5
9.	Integration of handicapped students will require most teachers to learn and use new techniques and materials.	1	2	3	4	5
10.	I believe that placing a handicapped student in a typical classroom would damage the student's self-concept.	1	2	3	4	5

		ID # _ _ _ _				
		strongly disagree	disagree	no opinion	agree	strongly agree
11.	A handicapped child will be motivated to learn in a regular classroom.	1	2	3	4	5
12.	I am confident that I will be able to make handicapped students feel comfortable in my classroom.	1	2	3	4	5
13.	Handicapped children should compete with normal children.	1	2	3	4	5
14.	As a result of placement in a regular classroom, a handicapped child will develop a more positive attitude toward school.	1	2	3	4	5
15.	The integration of handicapped students into a regular classroom represents an opportunity for the teacher to grow both personally and professionally.	1	2	3	4	5
16.	In my role as an educator, I have little confidence in my ability to control whether students make scapegoats out of "mainstreamed" handicapped.	1	2	3	4	5
17.	With a handicapped child in a regular classroom, there will be an increase in the number of behavior problems among the other children.	1	2	3	4	5
18.	The presence of a handicapped child in a regular classroom will be a cause for complaints from the parents of other children.	1	2	3	4	5
19.	Handicapped persons are usually more sensitive than other people.	1	2	3	4	5
20.	Placement of a handicapped child in a regular classroom will likely result in his becoming socially withdrawn.	1	2	3	4	5

		ID # _ _ _ _				
		strongly disagree	disagree	no opinion	agree	strongly agree
21.	Handicapped people should not have to compete for jobs with normal persons.	1	2	3	4	5
22.	A handicapped child will be disruptive in a regular classroom.	1	2	3	4	5
23.	I think that the integration of handicapped students into the regular classroom will harm the educational achievement of average students.	1	2	3	4	5
24.	The driving test given to a handicapped person should be more severe than the one given to the nonhandicapped.	1	2	3	4	5
25.	A handicapped child will not even respond to your best teaching efforts.	1	2	3	4	5
26.	There is not enough time in a teacher's day to deal satisfactorily with the different needs of both average and handicapped pupils.	1	2	3	4	5
27.	I believe that average students are uncomfortable when they are with children who have obvious physical deformities.	1	2	3	4	5
28.	Handicapped workers cannot be as successful as other workers.	1	2	3	4	5
29.	Integration of handicapped students will require most teachers to change the physical arrangements and management of their classrooms to increase the variety of learning environments available to children.	1	2	3	4	5
30.	A handicapped child will develop a more positive self-concept as a result of being placed in a regular classroom.	1	2	3	4	5



		ID #    —    —    —    —				
		strongly disagree	disagree	no opinion	agree	strongly agree
31.	If I were the parent of a child who had a learning problem, I would want him to be in a regular classroom for most of the school day.	1	2	3	4	5
32.	A handicapped child will likely form positive social relationships with other children in a regular classroom.	1	2	3	4	5
33.	Handicapped people usually do not make much of a contribution to society.	1	2	3	4	5
34.	Handicapped persons do not want any more sympathy than other people.	1	2	3	4	5
35.	I generally look forward to the challenge of working with handicapped children.	1	2	3	4	5
36.	The experience of being in a regular classroom will increase the chances of a handicapped child attaining a more productive and independent place in society.	1	2	3	4	5
37.	I believe that average students need the experience of being in contact with handicapped students in an academic setting.	1	2	3	4	5
38.	Given my current understanding, I believe that "mainstreaming" will benefit me as a teacher, as well as all children.	1	2	3	4	5

ID # \_ \_ \_ \_

	strongly disagree	disagree	no opinion	agree	strongly agree
39. If I were the parent of a child who had an emotional problem, I would want him to be in a regular classroom for most of the school day.	1	2	3	4	5
40. Integration of handicapped students will require most teachers to use classroom time differently and perhaps more efficiently than is now the case.	1	2	3	4	5

## APPENDIX B

### CURRICULUM OVERVIEW

### Resources

1. Course manual
2. Ann P. Turnbull and Jane B. Schulz. Mainstreaming Handicapped Students: A Guide for the Classroom Teacher (Boston: Allyn and Bacon, Inc., 1979).
3. Herbert Goldstein, Senior author. Readings in Mainstreaming (Guilford: Special Learning Corporation, 1978).

### Definition of terms

Role study group - a homogenous group of educational professionals. The group is made up of persons from a discipline area such as physical education or special education. The function of this group is to allow professionals of a specialized area to interact and discuss common educational responsibilities, subject matter and instructional techniques.

Role task group - a heterogenous group of educational professionals. The group is made up of persons from various discipline areas such as physical education and special education. The function of the group is to allow professionals in diverse areas of specialization to interact and discuss their different educational responsibilities, subject matter, teaching methods and instructional techniques.

PURPOSE I. Introduce Participants to Each Other's Professional Roles

General Objective: To better understand the various professional roles of class members; to appreciate the importance of these individual contributions and the need for professional cooperation among and between these educators to effectively and efficiently physically educate all students.

- Specific Objectives:
1. Describe the roles and contribution of the following professionals: Physical education teacher; classroom teacher; special education teacher; administrator; and support personnel.
  2. Identify the interactive roles and responsibilities of various groups of educators.
  3. Identify the problems which school personnel must resolve to fulfill their expected roles and functions in providing services to students in schools.
  4. Describe the relationships that need to exist between the regular educators and the special educators.

Turnbull, Ann P. and Schulz, J. B. Mainstreaming Handicapped Students. (Boston: Allyn and Bacon, 1979). pp. 66-74.

PURPOSE II. Introduce Participants to Physical Education for the Handicapped

General Objective: A) To introduce participants to the general history and goals of physical education for students ages 3 - 21.

- Specific Objectives:
1. Participants will understand the following general objectives for the goals of physical education.
    - a. To develop the human movement potentialities to an optimal level.
    - b. To develop a basic understanding and appreciation of human movement.
    - c. To develop and maintain optimal physical and motor fitness.
    - d. To develop skills, knowledge, and attitudes basic to voluntary participation in physical activities.
    - e. To develop personally rewarding and socially acceptable behaviors through participation in enjoyable movement activities.
  2. Participants will become familiar with the history of physical education for special populations.
  3. Participants will understand the philosophy of a physical education program that attempts to meet the needs of all children.

General Objective: B) To present information to participants about the extension of physical education to accommodate students with a variety of motor skills.

- Specific Objectives:
1. Participants will understand that good physical education is adapted physical education.
  2. Participants will understand that the regular physical education teacher engages in adapted physical education each time she/he plans special activities for students.

3. Participants will understand the variations and similarities in instructional roles of teachers who work with students in various levels of educational settings.

General Objective: C) To inform participants about the role of physical education within the total educational framework of schooling.

- Specific Objectives:
1. Participants will understand that physical education is the only subject area that has motor skill acquisition as its primary focus of attention.
  2. Participants will understand that physical education is the only subject area that has physical fitness development as its primary focus of attention.
  3. Participants will understand the diverse roles of physical educators in meeting the educational needs of students in normal and special school settings.

#### References

D'Alonzo, B. J. Rights of exceptional children to participate in interscholastic athletics. Readings in Mainstreaming, pp. 186-192.

Turnbull, Ann P. and J. B. Schulz. Mainstreaming handicapped students: A guide for the classroom teachers. (Boston: Allyn and Bacon) 1979, pp. 271-290.

PURPOSE III. Introduce Participants to the Purposes and Philosophy of Mainstreaming.

General Objective: A) To review the background of mainstreaming.

- Specific Objectives:
1. Understand the past educational practices which contributed to the development of the concept of desegregation of handicapped individuals.
  2. Understand that the philosophical basis of mainstreaming lies in the belief that handicapped children are entitled to equal educational opportunities.
  3. Participants will know the historical background which culminated in the passage of Public Law 94-142.
  4. Participants will know the forces that operate on behalf of the handicapped to include legislation, litigation and advocacy groups.
  5. Participants will have a basic understanding of the history and philosophy of mainstreaming.
  6. Participants will understand the place in society of handicapped individuals.

General Objective: B) To present information about the purposes of mainstreaming.

- Specific Objectives:
1. To understand that mainstreaming is a technique to provide handicapped children an opportunity to have "normal" social and educational experiences.
  2. To know the definition of mainstreaming presented by Jack W. Birch (p. 4 in Readings in Mainstreaming).
  3. Participants will describe the "normalization principle" as it applies to the handicapped.



4. Participants will explain the rationale for mainstreaming mildly handicapped students.
5. Participants will specify what mainstreaming is and what it is not.
6. Participants will be familiar with the principle of least restrictive environment.

General Objective: C) To present information about shared responsibility among educational professionals for mainstreaming.

- Specific Objectives:
1. To understand that all professional staff who are involved with a specific child are responsible to make input into the educational process of that child.
  2. Participants will have a basic knowledge of various mainstreaming models; e. g., consulting teachers, resource personnel, etc.
  3. Participants will compare and contrast the major factors of mainstreamed education with those of traditional special education and regular education.
  4. Participants will be made aware of educational programs for children who require special services and facilities to maximize their potential.
  5. Participants will identify criteria for predicting success of handicapped students in different educational environments.

### References

#### Readings in Mainstreaming

1. Milbauer, pp. 4-6
2. Lance, pp. 7-15
3. Zufall, pp. 16-18
4. Abeson, A., Bolick, N. and Hass, J., pp. 23-29
5. Molloy, pp. 52-53
6. Warnock, pp. 56-59
7. Martin, pp. 68-71
8. Lippman, pp. 72-77
9. Stephens, p. 84

#### Turnbull and Schulz

1. Chapter 2, pp. 51-74

PURPOSE IV. Introduce Participants to Federal and State Laws Affecting the Handicapped.

General Objective: A) To deliver information to participants about Public Law 93-380 and Public Law 94-142.

Specific Objectives: Participants will:

1. Understand the 7 principles of P. L. 94-142.
2. Be familiar with the continuum of placement for handicapped students.
3. Appreciate the importance of parent participation in planning activities for handicapped students.
4. Be able to describe the process and components of the IEP.

General Objective: B) To deliver information to participants about Section 504 of the Rehabilitation Act of 1973.

Specific Objectives: Participants will:

1. State the purpose of Section 504.
2. Know the similarities and differences in Section 504 and in P. L. 94-142, with regard to: Federal Funding, Free and Appropriate Public Education, IEP, and LRE.

General Objective: C) To deliver information to participants about Section 615 of P. L. 94-142.

Specific Objectives: Participants will:

1. Be able to describe the importance of the principle of due process.
2. Be able to state the rights of parents and teachers as provided by Section 615.
3. Understand the steps of the due process.
4. Understand the major issues related to the due process procedure.

General Objective: D) To deliver information to participants about Illinois special education legislation.

Specific Objectives: Participants will:

1. Understand the State Education Agency (SEA) responsibilities in implementing the mandates of P. L. 94-142.
2. Understand the Local Education Agency (LEA) responsibilities in implementing SEA Special Education Rules and Regulations, P. L. 94-142.

PURPOSE V. Introduce Participants to Educational Characteristics of Handicapped Students (Etiology - Normal and Special Students)

General Objective: A) To present information to participants about the characteristics and etiology of mentally handicapped students ages 3 - 21.

Specific Objectives: 1. Participants will have a basic understanding of the following terms:

- a. educable mentally handicapped
- b. trainable mentally handicapped
- c. severe and profound mentally handicapped

General Objective: B) To present information to participants about the characteristics and etiology of physically handicapped students ages 3-21.

Specific Objectives: 1. Participants will have a basic understanding of the following handicapping diseases or conditions: cerebral palsy, spina bifida, epilepsy, hearing and speech impaired, visually impaired, and diabetes.

2. Participants will become familiar with the working definition of cardiac disorders, muscular dystrophy, post-polio, deaf-blind.

3. Participants will become aware of other health impaired handicaps.

General Objective: C) To present information to participants about the characteristics and etiology of students ages 3-21 with learning and behavior problems.

Specific Objectives: 1. Participants will become knowledgeable of the definitions: cognitive, physical, social behaviors; and, educational characteristics of the emotional, learning, and behavioral problem students.

General Objective: D) To present the implications that these characteristics of handicapped students have for teachers.

### References

- Neisworth, J. T. & Greer, J. G. Functional similarities of learning disability and mild retardation. Readings in Mainstreaming. pp. 126-7.
- Turnbull, Ann P. & Schulz, J. B. Mainstreaming Handicapped Students: A guide for classroom teachers. Chapter 1.

PURPOSE VI. Introduce Participants to the Issues Undergirding Positive and Negative Attitudes Toward the Handicapped

General Objective: A) To provide an opportunity for participants to understand the importance of school personnel and student peer group attitudes that prevail in the educational setting.

- Specific Objectives:
1. Participants will understand the importance of teachers' favorable attitudes toward handicapped students.
  2. Participants will understand the importance of student peer group having favorable attitudes toward handicapped peers.
  3. Participants will list some potentially negative attitudes that professional educators may have toward handicapped students.

General Objective: B) To present information to participants about the influence of teacher behavior and expectation on student learning.

- Specific Objectives:
1. Participants will describe ways in which expectations and stereotypes affect learning and relationships of children.
  2. Participants will describe or be aware of attitude differences toward various handicapping conditions.
  3. Participants will list personal characteristics that demonstrate the professional competence to teach handicapped children.
  4. Participants will describe the influence of teachers on the intellectual growth and social adjustment of children.

References

Readings in Mainstreaming

1. Donaldson, pp. 19-22
2. Case History, pp. 80-83
3. Today's education, pp. 93-98
4. Cook, Wollersheim, pp. 110-116
5. Neisworth, pp. 126-127
6. Lax, B., pp. 148-150
7. MacMillan, pp. 151-157
8. Lilly, pp. 168-170
9. Zeigler, pp. 184-185

Turnbull and Schulz, Mainstreaming Handicapped Students: A Guide for the Classroom Teachers,

pp. 341-345

PURPOSE VII. Introduce Participants to Parental and Guardian Concerns Regarding their Handicapped Children in Educational Institutions and Society

General Objective: A) To inform the participants of the need for shared communication with parents in the educational planning, teaching, and evaluation of handicapped children.

- Specific Objectives:
1. Participants will understand the importance of parents as participants in the mainstreaming process.
  2. Participants will be able to describe ways to involve parents in making placement decisions for their children.
  3. Participants will understand the importance of team approach utilized in interdisciplinary staffing.

General Objective: B) To present information about parents' experiences as members of a family with a handicapped child.

- Specific Objectives:
1. Participants will obtain knowledge about the personal experiences of parents of handicapped children.
  2. Participants will analyze their experiences and relate them to teaching handicapped students.
  3. Participants will be able to list the difficulties that parents of handicapped children experience, and, ways in which teachers may assist parents in meeting challenges.

General Objective: C) To present information about the anti-discrimination movement in society, particularly as this movement affects the handicapped.

- Specific Objectives:
1. Participants will describe the history of efforts to educate the handicapped.
  2. Participants will list the individuals, groups and legislation most responsible for improvement in educational and employment opportunities for the handicapped.

PURPOSE VIII. Introduce Participants to Referral, Screening and Evaluation (interdisciplinary - from different points of view)

General Objective: A) To present information to participants about the referral process.

- Specific Objectives:
1. Participants will investigate and record the referral process in practice at their school.
  2. Participants will understand support service personnel roles in assessment and evaluation.

General Objective: B) To present information to participants about the screening and assessment of individuals.

- Specific Objectives:
1. Participants will understand the various screening methods which occur in the educational settings.
  2. Participants will understand the importance of efficient and effective screening.
  3. Participants will know that negative labels are a possible outcome of screening.
  4. Participants will be aware of differences of educational diagnosis and formal screening of students.
  5. Participants will understand the effects of discriminatory testing in the educational opportunity of students.
  6. Participants will become knowledgeable of the 10 points in the educational diagnostic process as defined by Birch and Reynolds (pp. 124-125).
  7. Participants will become aware of the different sources of information to aid in the educational diagnostic process.

General Objective: C) To present information to participants about program evaluation.

Specific Objectives: 1. Participants will comprehend 12 ways in which program evaluation can be conducted (Birch and Reynolds, pp. 133-153).

#### References

Turnbull and Schulz, pp. 164-169 (Reading)  
Turnbull and Schulz, pp. 212-224 (Arithmetic)  
Turnbull and Schulz, pp. 271-280 (Physical Education)



PURPOSE IX. Introduce Participants to the Roles of the Support  
Service Personnel

General Objective: To inform participants about what professional and instructional support staff are available, for what duties, and for how much time.

- Specific Objectives:
1. Be familiar with role tasks and availability of the following school service personnel:
    - a. Occupational therapist
    - b. Physical therapist
    - c. Speech and hearing clinician
    - d. School psychologist
    - e. School nurse
    - f. Social worker
    - g. Other selected service personnel
  2. To identify the interactive roles and responsibilities of various groups of educators in promoting the approach of shared responsibility in order to successfully implement least restrictive policies.

PURPOSE X. Introduce Participants to the Principles of Developing  
an Individualized Educational Program (IEP)

General Objectives: A) To inform participants about the placement  
committee.

- Specific Objectives:
1. To understand the composition of the  
placement committee.
  2. Participants will become knowledgeable  
about the three functions of the  
placement committee.
    - a. preplanning
    - b. planning
    - c. implementing

General Objectives: B) To present information to the participants  
about the elements of an IEP

- Specific Objectives:
1. Participants will understand the following  
seven elements of an IEP:
    - a. Statement of student's present level  
of educational achievement.
    - b. Statement of annual goals.
    - c. Statement of short term instructional  
objectives.
    - d. Statement of specific educational  
services.
    - e. Date of commencement and termination  
of services.
    - f. Description of the extent the child  
will participate in regular education  
programs.
    - g. Annual review of student performance.

General Objectives: C) To assist the participants in understanding the  
IEP process.

- Specific Objectives:
1. Participants will demonstrate a working  
knowledge for implementing the IEP as it  
may occur in a given regular education  
setting.
  2. Participants will understand the necessity  
to cooperate with colleagues in developing  
appropriate objectives for each child.
  3. Participants will understand their role as  
a member of the interdisciplinary team in  
planning an IEP for pupils with special  
needs.

## References

Turnbull and Schulz, Chapter 3 and 4.

## Individualized Education Programs

Auxter, D. The teacher of individually prescribed instruction in perceptual motor development. JOHPER, June, 1971, 42, 41-42.

Daniel, A. N. An example of individual instruction in developmental physical education. JOHPER, May, 1969, 50, 56.

Garcia and Pinkleton. The teacher's role in development for IEP's. A Primer on Individualized Education Programs, 1978, pp. 37-40.

Hayden, A. H. and Edgar, E. Developing individualized education programs for young handicapped children. Teaching Exceptional Children, 1978, 10, p. 67.

Hayes, J. and Higgins, S. T. Issues regarding the IEP: Teachers on the front line. Exceptional Children, 1978, 44, pp. 267-273.

Hedbring, C. and Holmes, C. Getting it together with P. L. 94-142: The IEP in the classroom. Education and Training of the Mentally Retarded, 1977, 12, pp. 212-224.

Johnson, E. C., Karl, H. A case history. JOHPER, February 1973, 44, pp. 71-72.

Orr, R. E. Does the IEP really deal with the handicapped individual's special need? Physical Educator, 1980, 37, 4-6.

Slerr, R. Meeting to develop the individualized education program. A Primer on Individualized Education Programs, 1978, Chapter 6, pp. 31-36.

PURPOSE XI. Introduce Participants to Classroom Management Techniques and Implementation

General Objective: A) To inform participants about the purposes of class management techniques.

Specific Objectives: 1. Participants to become knowledgeable of behavior management as a function of organization for structure which requires attention to teacher, child and group behavior and also environmental situations.

General Objective: B) To present information to participants for tying together practice and theory in classroom management techniques.

Specific Objectives: 1. Participants will become knowledgeable of three behavior management approaches and their theory-to-practice bases.

- a. Sensory-neurological
- b. Psychodynamic - interpersonal
- c. Operant

2. Participants will obtain information about how the above behavior management principles can be applied to an individual or a group.

General Objective: C) To provide information for participants to implement classroom management techniques.

Specific Objectives: 1. Participants will identify accurately, orally, or in writing, at least five of seven design and management strategies for enhancing behavior values as practiced by self or others (I. E., modeling, structuring, physical environment, planned ignoring, regulated permission, stating and reinforcing consequences, contracting).

2. Participants will understand that behavior management includes three primary components:

- a. methods for preventing behavior problems
- b. methods for teaching students the skills necessary for coping with stress
- c. methods for intervening in disruptive student behavior

3. Participants will gain knowledge about the surface management techniques:

- a. planned ignoring
- b. signal interference
- c. proximity control
- d. interest boosting
- e. tension decontamination through humor
- f. hurdle lessons
- g. restructuring the classroom program
- h. direct appeal to values
- i. support for routine
- j. removing seductive objects
- k. antiseptic bounce
- l. physical restraint

### References

- Fagen, Stanley and Hill, Jeffrey M. Behavior Management. Psychoeducational Resources, Inc. Washington, D. C., 1977.
- Kazdin, A. E. Behavior Modification in Applied Settings. Homewood, Il.: The Dorsey Press, 1975.
- Goodwin, D. L. and Coates, T. J. Helping Students Help Themselves: How you can put behavior analysis into action in your classroom. New Jersey: Prentice-Hall, 1976.
- Duke, D. L. (Editor) Classroom Management. Chicago, Illinois: The University of Chicago Press, 1979.
- Honne, L. How to Use Contingency Contracting in the Classroom. Champaign, Illinois: Research Press, 1974.
- Turnbull, Ann P. and Schulz J. B. Mainstreaming Handicapped Students: A Guide for Classroom Teachers. Boston: Allyn and Bacon, 1979. (Chapter 9, Changing Behavior).

## APPENDIX C

### VARIABLE GROUPING

### Variables

The variables were based on the 40 items from the attitude inventory that was administered to the participants. For analysis, there was an eight variable grouping.

#### 1. General attitudes toward the handicapped

##### Item #

- 4 - It would be best if handicapped persons would live and work with nonhandicapped people.
- 8 - Most handicapped persons want more affection and praise than other people.
- 19 - Handicapped persons are usually more sensitive than other people.
- 28 - Handicapped workers cannot be as successful as other workers.
- 33 - Handicapped people usually do not make much of a contribution to society.
- 34 - Handicapped persons do not want any more sympathy than other people.

#### 2. Need for special treatment in work and education

- 3 - Handicapped students are more like normal students than they are different from them.
- 5 - As with nonhandicapped students, teachers should require handicapped students to share accountability for their learning.
- 13 - Handicapped children should not compete with normal children
- 21 - Handicapped people should not have to compete for jobs with normal persons.
- 24 - The driving test given to a handicapped person should be more severe than the one given to the nonhandicapped.

3. Attitudes toward regular placement of the handicapped

- 1 - I think that the full-time special education class is the best placement for handicapped students.
- 7 - Assignment of a handicapped child to a regular classroom is a wise administrative decision.
- 18 - The presence of a handicapped child in a regular classroom will be a cause for complaints from the parents of the other children.
- 22 - A handicapped child will be disruptive in a regular classroom.
- 37 - I believe that average students need the experience of being in contact with handicapped students in an academic setting.
- 38 - Given my current understanding, I believe that "mainstreaming" will benefit me as a teacher, as well as all children.

4. Effects of mainstreaming on nonhandicapped students

- 2 - I believe that average children will profit from their contact with handicapped students.
- 17 - With a handicapped child in a regular classroom, there will be an increase in the number of behavior problems among the other children.
- 23 - I think that the integration of handicapped students into the regular classroom will harm the educational achievement of average students.
- 27 - I believe that average students are uncomfortable when they are with children who have obvious physical deformities.

5. Teacher confidence to teach the handicapped

- 6 - Having to teach handicapped pupils places an unfair burden on the majority of classroom teachers.
- 12 - I am confident that I will be able to make handicapped students feel comfortable in my classroom.
- 15 - The integration of handicapped students into a regular classroom represents an opportunity for the teacher to grow both personally and professionally.
- 16 - In my role as an educator, I have little confidence in my ability to control whether students make scapegoats out of mainstreamed students who are handicapped.



- 25 - A handicapped child will not respond even to your best teaching efforts.
- 26 - There is not enough time in a teacher's day to deal satisfactorily with the different needs of both average and handicapped pupils.
- 35 - I generally look forward to the challenge of working with handicapped children.

6. Effects on social adjustment of the handicapped

- 10 - I believe that placing a handicapped student in a typical classroom would damage the student's self-concept.
- 11 - A handicapped child will be motivated to learn in a regular classroom.
- 14 - As a result of placement in a regular classroom, a handicapped child will develop a more positive attitude toward school.
- 20 - Placement of a handicapped child in a regular classroom will likely result in his becoming socially withdrawn.
- 30 - A handicapped child will develop a more positive self-concept as a result of being placed in a regular classroom.
- 32 - A handicapped child will likely form a positive social relationship with other children in a regular classroom.
- 36 - The experience of being in a regular classroom will increase the chances of a handicapped child attaining a more productive and independent place in society.

7. Need to change teaching practices and environment

- 9 - Integration of handicapped students will require most teachers to learn to use new techniques and materials.
- 29 - Integration of handicapped students will require most teachers to change the physical environment and management of their classrooms to increase the variety of learning environments available to them.
- 40 - Integration of handicapped students will require most classroom teachers to use their time differently and perhaps more efficiently than is now the case.

8. Parent reactions

- 31 - If I were the parent to a child who had a learning problem, I would want him to be in a regular classroom for most of the school day.
- 39 - If I were the parent of a child who had an emotional problem, I would want him to be in a regular classroom for most of the school day.

## BIBLIOGRAPHY

## BIBLIOGRAPHY

- Archibald, David, Mainstreaming; A Practical Teacher In-service Manual to Get from Here to There. Neshaminy School District, Langhorne, Pennsylvania, 1978, p. 67.
- Binkley, Betty et al., In-Service Training for General Education Teachers in Compliance with P. L. 94-142 under the Tennessee State Plan. Memphis, Tennessee, 1978.
- Burrello, Leonard C. et al., "Training all educators to better serve handicapped children", Education Unlimited, June, 1979, p. 37.
- Campbell, Donald T. and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research, Chicago: Rand McNally and Company, 1966, pp. 53-54.
- Carroll, Andrea and Joseph Purdy, In-service program development to assist teachers to effectively service students with exceptional needs in the mainstream, California State Department of Education, 1977.
- Cronbach, Lee Joseph and Richard E. Snow, Aptitudes and Instructional Method: A handbook for research on interactions, New York: Irvington Press, 1977.
- Dunn, Lloyd M. "Special Education for the Mildly Retarded - is much of it justifiable?", Exceptional Children, September, 1968, p. 6.
- Fine, Marvin J., "Attitudes of regular and special class teachers toward the educable mentally retarded child." Exceptional Children, 1967, 33, p. 429.
- Fiorentino, Michael, A Study of the Effects of a Shortterm In-service Education Program on Regular Classroom Teachers' Attitudes Towards and Knowledge of Mainstreaming, Doctoral dissertation, University of Massachusetts, 1978, p. 116.
- Fitzpatrick, John and Allen Beavers, Mainstreaming and the Handicapped: Teacher, Administrator, and Community Attitudes, Paper, 1978.
- Ford, Karen and Lloyd Stjernberg, Meeting the least restrictive environment challenge: Preliminary considerations for educators. An in-service training package, Drake University, 1979, 206.

- Gentry, Ruben, The Mini-Course; A Delivery Approach for Training In-service Personnel in the Education of the Handicapped, Paper, 1979, Dallas, Texas.
- Goldhammer, Keith, Billie Rader and Philip Reuschlein, Mainstreaming: Teacher Competencies, East Lansing: College of Education, Michigan State University, April, 1977.
- Harasymiw, Stefan J., and Marcia D. Horner, "Teacher attitudes toward handicapped children and regular class integration." Journal of Special Education, 10, 4, p. 395.
- Haring, James, George Stern and William M. Cruickshank, Attitudes of Educators Toward Exceptional Children, Syracuse: Syracuse University Press, 1978.
- Hodges, Larry and Robert Hodges, "Schools of education and in-service training of teachers", Educational Technology, 1975, 15, p. 60.
- Ingram, Sylvia Hibbler, An assessment of regular classroom teachers' attitudes toward exceptional children subsequent to training in mainstreaming. Doctoral dissertation, University of Michigan, 1976, 165 pp.
- Jones, Reginald L. et al., "Evaluating Mainstreaming Programs: Models, Caveats, Considerations and Guidelines.", Exceptional Children, 44, 8, p. 594.
- King, James, Paul Hayes and Isadore Newman, "Some requirements for successful in-service education", Phi Delta Kappan, 1977, 58, p. 687.
- Kirk, Roger E., Statistical Issues: A Reader for the Behavioral Sciences, Monterey: Brooks/Cole Publishing Company, 1972, p. 258.
- Larrivee, Barbara, "Effect of In-Service Training Intensity on Teachers' Attitudes Toward Mainstreaming", Exceptional Children, 1981, 1, p. 35.
- McDaniel, Lindy, "Changing Vocational Teachers' Attitudes Toward the Handicapped", Exceptional Children, 1982, 4, pp. 377-378.
- Mitchell, Marlys M., "Teacher Attitudes", The High School Journal, 1976, 59, p. 308.
- Moorman, James, "Vocational education for the handicapped: A study of attitudes", The Journal for Vocational Special Needs Education, 1980, 2, pp. 25-26.

- Mortz, D. M. J., Sister Mary Eileen, An Investigation of a Faculty Controlled In-service Training Model on Attitudes and Knowledge Related to Handicapped Children in Regular Classrooms. Doctoral dissertation, University of Kansas, 1977, 159 pp.
- National Education Association, Teachers' Rights. Education for All Handicapped Children: Consensus, Conflict and Challenge, Washington, D. C.: National Education Association, 1978, p. 4041.
- Nelson, Calvin C., and Leo J. Schmidt, "Forum: the question of the efficacy of special classes", Exceptional Children, 1971, 37, p. 381.
- Overline, Herbert, "Mainstreaming - Making it happen", Sacramento, California State Department of Education, 1977.
- Reynolds, Maynard C. and Jack W. Birch, Teaching Exceptional Children in All American's Schools - A First Course for Teachers and Principals, Reston: The Council for Exceptional Children, 1977, p. 697.
- Rice, John P., An Interstate Consortium of Directors of Special Education Confront the Problems of Mainstreaming, editor, Phil Mann, Shared Responsibility for Handicapped Students: Advocacy and Programming, Coral Gables, Florida: University of Miami, 1976, p. 513.
- Schliefer, Mary, "The Teacher and Mainstreaming", The Exceptional Parent, October, 1978, p. 3.
- Shaw, Marvin E. and Wright, Jack M., Scales for the measurement of attitudes, New York: McGraw-Hill Company, 1967.
- Shotel, Jay R., Richard P. Iano and James F. McGettigan, "Teacher attitudes associated with the integration of handicapped children", Exceptional Children, 1972, 38, p. 683.
- Singleton, Karin, The Role of the Research Specialist in Increasing Positive Attitudes Toward Having Individuals with Special Needs Enrolled in Regular Classrooms, Final Report, Culver City Unified Schools, California, June, 1976, p. 28.
- Turnbull, Ann P. and H. Rutherford Turnbull, Free Appropriate Public Education: Law and Implementation, Denver: Love Publishing Company, 1978.
- United States Congress, Public Law 94-142, Washington, D. C.: United States Government Printing Office, 1975, p. 3008.

Walthams, Gretchen Markle, "The Effects of a Professional Development Seminar on the Attitudes, Knowledge and Behavioral Strategies of Counselors Toward Handicapped Students, Doctoral Dissertation, Wayne State University, 1975.

Watson, Myron, Mainstreaming the Educable Mentally Retarded, Washington, D. C.: National Education Association, 1975, p. 365.

Yuker, Harold E., J. R. Block and Janet H. Youngg, "The Measurement of Attitudes Toward Disabled Persons", Human Resources Study Number 7, Albertson, New York: Human Resources Center, 1966.