



Attitudes of physical education graduate students toward the integration of handicapped students into regular classrooms
by Martha Marie Gilthvedt

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Physical Education
Montana State University
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Abstract:

The purpose of this study was to determine the attitudinal changes among physical education graduate students toward the integration of handicapped individuals into regular physical education classrooms. If changes did occur, the relationship of demographic, curriculum and experience variables to these attitudes was to be studied. Specifically, this study attempted to ascertain: (1) the attitudes of physical education graduate students toward integrating handicapped individuals at the beginning and the end of the school year; (2) a comparison of attitudes between physical education graduate students and graduate students in the College of Education toward integration at the beginning and at the end of the school year; and (3) the relationship of specific variables and changes in attitudes, if any, of these students during the school year.

Participants in the study were twenty-two physical education graduate students and seventeen graduate students in the College of Education at Montana State University, Bozeman, Montana. All the students were enrolled at Montana State during the 1980-1981 school year. The students were sent questionnaires at the beginning and at the end of the school year.

The questionnaires sent to the students at the beginning and at the end of the year were developed by Baker, Montemurro, and Kapperman (1973). A version revised by May and Furst (1977) was used by the researcher. A demographic questionnaire was included with the questionnaire given to the students at the end of the school year. This was developed by the researcher and Dr. C. Stewart. Results from these questionnaires supported the hypotheses of the study: (1) there would be no significant change in attitudes from the beginning of the school year to the end of the school year; (2) the graduate students' demographics, curriculum, and experiences during the school year would not significantly affect their attitudes toward handicapped students; and (3) no difference would be revealed between physical education graduate students and regular education graduate students' attitudes toward handicapped students.

ATTITUDES OF PHYSICAL EDUCATION GRADUATE STUDENTS
TOWARD THE INTEGRATION OF HANDICAPPED
STUDENTS INTO REGULAR CLASSROOMS

by

Martha Marie Gilthvedt

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This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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Date September 27, 1983

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ABSTRACT

The purpose of this study was to determine the attitudinal changes among physical education graduate students toward the integration of handicapped individuals into regular physical education classrooms. If changes did occur, the relationship of demographic, curriculum and experience variables to these attitudes was to be studied. Specifically, this study attempted to ascertain: (1) the attitudes of physical education graduate students toward integrating handicapped individuals at the beginning and the end of the school year; (2) a comparison of attitudes between physical education graduate students and graduate students in the College of Education toward integration at the beginning and at the end of the school year; and (3) the relationship of specific variables and changes in attitudes, if any, of these students during the school year.

Participants in the study were twenty-two physical education graduate students and seventeen graduate students in the College of Education at Montana State University, Bozeman, Montana. All the students were enrolled at Montana State during the 1980-1981 school year. The students were sent questionnaires at the beginning and at the end of the school year.

The questionnaires sent to the students at the beginning and at the end of the year were developed by Baker, Montemurro, and Kapperman (1973). A version revised by May and Furst (1977) was used by the researcher. A demographic questionnaire was included with the questionnaire given to the students at the end of the school year. This was developed by the researcher and Dr. C. Stewart. Results from these questionnaires supported the hypotheses of the study: (1) there would be no significant change in attitudes from the beginning of the school year to the end of the school year; (2) the graduate students' demographics, curriculum, and experiences during the school year would not significantly affect their attitudes toward handicapped students; and (3) no difference would be revealed between physical education graduate students' and regular education graduate students' attitudes toward handicapped students.

CHAPTER ONE

INTRODUCTION

When Public Law 94-142 became effective in 1977, it specifically stated that physical education must be a regular part of the curriculum for all handicapped students. This meant that all handicapped students not only had to have physical education, but had to be a part of a regular physical education class unless a special physical education class was more appropriate for their needs.

During the 1980-1981 school year, Montana State was part of a training project for the exceptional individual within the Department of Health, Physical Education, and Recreation. One of the objectives of the project was to provide graduate courses and practicum experiences to graduate students. Practicums were an integral part of the program.

The subjects in this study were graduate students from the Departments of Health, Physical Education, and Recreation and the College of Education. The study was designed to discover if any change in attitudes toward the integration of handicapped students developed during the 1980-1981 school year. If any change took place, demographic variables were to be studied. They would be studied to determine if any of those variables affected the change that might have taken place. It

was anticipated that practicum experiences within the graduate physical education curriculum would affect the physical education graduate students.

Statement of the Problem

The purpose of this study was to determine the attitudinal changes that occurred among physical education graduate students toward the integration of handicapped individuals into regular physical education classrooms. If changes did occur, the relationship of demographic, curriculum and experience variables to these attitudes was to be studied.

Specifically, the problems of this study were to ascertain:

(1) any attitudinal changes of physical education graduate students and students in the College of Education toward integration of handicapped individuals during the 1980-1981 school year; (2) a comparison of attitudes between the two groups toward integrating handicapped individuals at the beginning and the end of the school year; and (3) the relationship between specific variables and any changes in attitudes of these students during the school year.

Definitions

Attitudes are the sum total of a man's inclinations and feelings, prejudices or biases, preconceived notions; ideas, fears, threats, and convictions about any specific topic (Thurstone, 1959).

Variables are those dimensions of a person which interact and may be changeable (Leedy, 1980).

Specific Handicapped Individuals are those students who find achievement in a school setting unusually difficult because of intellectual, emotional, sensory, physical or perceptual deficits. Individuals was used interchangeably with words such as persons, children, or students (Sarason and Doris, 1978).

Integration is the inclusion of all types of persons in the regular classroom. This would include physically and mentally handicapped persons. Mainstreaming is another term for integration and is used interchangeably with integration (Egbert, 1978).

Demographics are those personal variables, such as age, sex, educational background, etc., which could be factors in individual relationships with handicapped persons (Pietroski, 1979).

Limitations

This study was limited to 22 1980-1981 physical education graduate students and 17 graduate students from the College of Education at Montana State University, Bozeman, Montana. The 22 physical education graduate students were the entire population of graduate students in the Department of Health, Physical Education, and Recreation.

This study was further limited to the respondents' answers to the composite taken from the Mainstreaming Inventory revised and shortened by May and Furst (1977), (Appendix A and B). The original inventory was designed by Baker, Montemurro, and Kapperman (1973). Also limiting

the study were the respondents' answers to the questionnaire developed by the researcher and Stewart (Appendix C).

Assumptions

For the purpose of this study, it was assumed that all of the graduate students who were a part of this study have attitudes toward handicapped individuals.

Justification of this Study

Since the advent in 1975 of Public Law 94-142, which stated that each handicapped individual will receive a free, appropriate education, educators of public schools have had to make provisions for handicapped individuals. Considerable amounts of research concerning attitudes toward the handicapped have been conducted on public school teachers and administrators. Some research has been conducted on preservice teachers, but little research has been conducted on the attitudes of graduate students in education. It has been documented that teachers' attitudes toward students have an effect on students' progress. The attitudes of teachers working with handicapped students were important to the success or failure of teaching the handicapped student (Gickling and Theobald, 1975; Horne, 1979; Kendall, 1979; Rosenthal and Jacobson, 1968). The attitudes of the administrators have an effect on how successful integration was in a school system (Amos and Lamar, 1977; Birch, 1978; Harasymiw and Horne, 1976; Hughes, 1978; Yaffee, 1979). Since the law specifically included physical education as an integral part of this free, appropriate education, it is important for all educators to be cognizant of the

variables that may affect the graduate students' attitudes toward integration. Therefore, since attitudes play such an important role in the educational system, the purpose of this study was to determine whether the graduate students that were a part of this study had changes of attitudes during their year in graduate school and if changes occurred, what variables affected those changes.

CHAPTER TWO

SURVEY OF RELATED LITERATURE

Studies involving the attitudes of graduate students in education toward the integration of handicapped students into regular classrooms were limited. Therefore, the research reviewed pertained mainly to the attitudes of teachers, administrators, and preservice teachers toward the integration of handicapped students into regular classrooms. The assumption has been made by the investigator that literature on the attitudes of all educators toward the integration of handicapped students into regular classrooms was pertinent.

Public Law 94-142, which became effective on October 1, 1977, mandated that public school educators assign handicapped students to classrooms that create the most favorable learning environment for each exceptional child. More specifically, the law stated that handicapped students were to be in regular physical education classrooms unless another environment has been determined to be more favorable.

If handicapped students were to be incorporated into the mainstream of American education, the attitudes of the educators who are expected to teach those students must be explored. Factors affecting the attitudes of teachers toward integration were investigated. The purpose of this review was to examine certain factors that might be pertinent to the attitudes of educators and specifically physical

educators toward the integration of handicapped students into regular classrooms.

Background of Public Law 94-142

To understand the issue of integrating handicapped students into regular classrooms, the background of the situation must be understood. The Education for All Handicapped Children Act, Public Law 94-142, was passed by Congress on November 29, 1975. According to Dean Corrigan,

This act is the most important piece of education legislation in the history of this country. With its far-reaching implications for schools and colleges, it could be the vehicle through which education emerges as a profession (Corrigan, 1978, p. 18).

Public Law 94-142 mandated that all handicapped persons be given a free, appropriate education at no cost to the parents of the child. This appropriate education is to take place in the least restrictive environment. The regular classroom has been prescribed as the least restrictive environment for any particular handicapping condition, unless another type of classroom setting would better meet the needs of a handicapped individual (Corrigan, 1978). Therefore, regular classroom teachers and all other school personnel must be knowledgeable about both specific handicapping conditions and teaching students with those handicapping conditions (Corrigan, 1978).

The process that resulted in the passage by Congress of P.L. 94-142 began in two different areas--education and civil rights. In education the process started nine years before the law was passed.

It began with a presidential task force on the physically handicapped. Weintraub and Martin (1978) believed that the task force should be committed to the needs of all handicapped children, the mentally handicapped as well as the physically handicapped (Martin, 1978). The task force wanted a federal policy based on an analysis of the full task and a policy that would meet all the needs identified (Martin, 1978). Included in this idea was the concept that handicapped persons should not automatically be set apart. In the past, disabled persons had been set apart in our society. There were educational systems that segregated the handicapped from the non-handicapped (Reynolds, 1978).

The standard to which the presidential task force became committed was the normalization principle established by Wolfensberger (1975). Wolfensberger stated this principle as follows: "...utilization of means which are as culturally normative as possible, in order to establish and/or maintain personal behaviors and characteristics which are as culturally normative as possible" (Wolfensberger, 1975, 28).

The other area that contributed to the advent of P. L. 94-142 was civil rights. Not only had handicapped persons been set apart, but people of different races had been set apart--blacks in segregated schools, Indians on reservations, and Japanese-Americans in internment camps during World War II. The segregated institutions were supposedly created for the good of those persons segregated, but each had shown a pattern of neglect, isolation, and rejection from society (Martin, 1974).

The pursuit of civil rights played a major role in the passage of P. L. 94-142. Several landmark civil rights cases were the forerunners of Public Law 94-142. Brown versus Board of Education in 1954 established the right of all black children to the same educational opportunities as white children (Reynolds, 1978). Brown versus Board of Education laid the ground work for integration, in that the court declared that no child could be expected to succeed in life if that child were denied the opportunity of an education. If the opportunity of an education were given to certain children, it must be made available to all children on equal terms (Gilhool, 1976). The decision stated that segregation had harmful effects for all those involved--handicapped and non-handicapped (Corrigan, 1978).

Brown versus Board of Education was primarily an integration decision, but it was also the basis for the zero rejection philosophy (Gilhool, 1976). If public education were to be provided for all normal children, then it had to be provided for handicapped children (Gilhool, 1976). In 1972, the Pennsylvania schools were mandated to permit retarded persons access to the public schools. This "zero reject" model of education meant that no retarded child would be turned away from a public school. The Peter Mill decision in Washington D.C. (1972) ordered "zero reject" education for all handicapping conditions, not just the mentally retarded (Corrigan, 1978).

These court cases, along with educational groups supported by parents of handicapped children, lawyers, and legislators, influenced the passage of Public Law 94-142 (Corrigan 1978). Reynolds (1978) referred to the Education for All Handicapped Children Act as the Magna

Carta for all those children who have been kept out of the mainstream of education for whatever reason.

Public Law 94-142 declared that every child should have a free appropriate education in the least restrictive environment. However, specifically included in that law is the area of physical education.

It stated:

Physical education services, especially designed if necessary must be made available to every handicapped child receiving a free appropriate public education. Each handicapped child must be afforded the opportunity to participate in the regular physical education program available to non-handicapped children unless: (1) The child is enrolled full time in a separate facility; or (2) The child needs specially designed physical education, as prescribed in the child's individualized education program (House Report, 1975, p. 9).

Stein (1978) maintained that participation in physical activities by handicapped individuals and non-handicapped individuals promoted better health, personal satisfaction and a higher quality of life. Very often the physical well being of the handicapped has been ignored, but now the law requires this opportunity for the handicapped (Stein, 1978).

Since physical education is specifically included in the law, it is imperative that undergraduates in physical education, teachers and graduate students be trained to teach the handicapped. Professionals need both appropriate attitudes and knowledge of specialized techniques to teach handicapped students in regular physical education classes.

Teachers' Attitudes

Research has been conducted concerning the attitudes of teachers toward integrating handicapped students into regular classrooms (Barclay and Kehle, 1979; Dworkin, 1979; Gickling and Theobald, 1975; Horne, 1979; Kendall, 1979; Stephens and Braun, 1980). While some research has been accomplished on pre-service teachers and pre-service teacher education programs, very little research has been accomplished on physical education teachers, and even less on graduate students' attitudes toward integration.

Researchers have revealed that the attitude of the teacher toward mainstreaming was the predominant indicator of success or failure in mainstreaming students into regular classrooms:

The regular classroom teacher is the single most important factor in the successful integration of handicapped children in regular classes. The attitudes held by these teachers are the key to how successful the integration program will be in coming years (Twitty, 1979, p. 28).

Kendall (1979) studied 224 regular classroom teachers in the Detroit Public School System. The sample population included two teachers from each elementary school, one teacher from each middle school, and one teacher from each high school. She reported from the study that teachers themselves believed their attitude toward a student would affect how well that student adjusted to placement in the regular classroom. Barclay and Kehle (1979) assessed three consecutive studies conducted on the entry of self-contained educably mentally retarded into regular classrooms. Forty-five classrooms of EMR students were randomly selected from the 115 classes of EMR students in Ohio. Conclusions from the studies were that peer-teacher

support systems did affect the EMR students in the regular classroom. A positive peer-teacher attitude made acceptance more likely. A negative peer-teacher attitude made acceptance less likely. 'Picking on' or making fun of a retarded child by peers often was modeled directly from teacher behaviors (Barclay and Kehle, 1979). In a study of 795 teachers from the Southwest Cook County (Illinois) Cooperative for Special Education, the belief that handicapped persons could become useful members of society was studied in relation to the teachers' willingness to integrate handicapped students in their classrooms (Stephens and Braun, 1980). The relationship between those teachers, 61 percent, who held this belief and successful mainstreaming in the regular classroom was significantly greater than those teachers, 39 percent, who did not believe that handicapped persons could become useful members of society. Another significant factor found by Stephens and Braun (1980) was that those teachers who were confident about their ability to integrate handicapped students were more positive about integrating those students.

Horne (1979), as a result of a review of studies on attitudes toward mainstreaming, reported that in our society teachers, peers, and family often have negative attitudes toward handicapped persons. Therefore mainstreaming programs must be designed to develop positive attitudes toward mainstreaming because the attitudes of teachers toward students does affect the teacher's behavior toward those students. Dworkin (1979) concluded from her study of 32 primary classes in the Washington, D.C. public schools that handicapped students were vulnerable to negative attitudes and expectations by the teacher. If

those attitudes and expectations could be made positive, the student had a much greater chance of success in the regular classroom.

Gickling and Theobald (1975) determined from a study of 326 teachers and administrators in Tennessee that if mainstreaming were to be successful, the attitudes of the teachers who were going to be working with the handicapped had to be assessed. They found that few (fifteen percent) of the secondary and elementary teachers examined felt they had the necessary skills to teach exceptional children, yet half saw the self contained special education classroom as too restrictive.

Gickling and Theobald (1975) raised the issue that the individual preferences of teachers toward certain types of students needed to be recognized. With the recognition of these individual preferences the teaching of attitudinal changes could take place.

Educators who are handicapped themselves have indicated that a focus on the similarities of handicapped and nonhandicapped students facilitates successful integration (Fox, 1978; MacGuagan, 1979, Martin, 1978; Reynolds, 1978). Their ideas agreed with experts in the field. The attitudes of the teachers should be on how much the children were similar, rather than how much they differed (Martin, 1978; Reynolds, 1978).

Factors Affecting Teacher Attitude Toward the Handicapped

In an examination of 176 regular classroom teachers and 82 special education teachers from urban and suburban school districts, Gillung and Rucker (1977) stated that labeling children had negative connotations for both regular and special education teachers. Regular

classroom teachers had lower expectations for students who were labeled than children with identical problems who were not labeled (Gillung and Rucker, 1977). The same finding was true of the 82 special education teachers who were part of the study. Klein (1975) from a study on preschool teachers indicated that mislabeling was the real problem. She stated that a teacher had to become acquainted with the individual's problems, reactions, strengths, and weaknesses. If the teacher understood the needs of the children and accepted the children for how they were, the children had a greater chance of being integrated into the school life of the children who did not have special needs (Klein, 1975).

In a study of 34 regular classroom elementary teachers and 33 junior and senior high teachers from urban and rural Georgia, teachers expressed a preference for the types of exceptional children that were integrated into the regular classroom (Hirshoren and Burton, 1979). Ninety-two percent of the teachers were most willing to have children with behavior disorders placed in the classroom, then sensory and physical handicapped children were preferred. The least accepted were the mentally impaired students. Other research conducted with elementary and secondary teachers drew similar conclusions (Horne, 1979; Shotel, Iano, and McGettigan, 1972). Shotel, Iano, and McGettigan (1972) conducted a study of 115 regular classroom teachers. The study revealed that teachers preferred learning disabled students to emotionally disturbed students and that educable mentally retarded students were least preferred.

Palmer (1979) conducted a study of 102 elementary teachers from a California school district. None of the teachers had taught in special education programs. The study was a simulation of a fifth grade class including educable handicapped, educable mentally retarded, and normal achievers. Remedial instruction was prescribed for the educable handicapped and the educable mentally retarded even though they were performing at the same level as normal achievers. Palmer concluded from the study that a teacher's knowledge of the educational background of educable handicapped and educable mentally retarded may affect the type of instruction used for them in the regular classroom, even though the students may have been performing at the same level as normal achievers. He found that handicapped students were both viewed and treated differently from the other students in the class.

Hughes (1978) concluded from a study on mainstreaming in vocational classrooms that teacher expectations and attitudes had an affect on student achievement and social development. The study included 546 vocational teachers throughout North Carolina. From the study Hughes found that if a teacher had low expectations for a student, the chance of the student achieving beyond that expectation was slim; however, if the teacher had high, but realistic expectations, the teacher would encourage the student to meet those expectations.

Labeling of students, expectations of students, and the preference for certain students all affect the attitudes teachers have toward exceptional individuals. Labels and stereotypes are not just apparent with teachers, but a part of our entire society. Socially, the handicapped person continues to be regarded as a member of a lower level

of our society (Harasymiw and Horne, 1976; Twitty, 1979). Harasymiw and Horne (1976) evaluated 352 urban school teachers. The study included 191 experimental teachers from five schools where handicapped children were incorporated into regular classrooms and 161 control teachers from comparable schools where integration had not been instituted. One of the hypotheses confirmed was concerning social distance attitudes. There was no change in the experimental groups' attitudes toward social distance even though the project resulted in improved attitudes by the experimental group toward the integration of handicapped students into regular classrooms. Twitty (1979) in a study of 146 regular classroom teachers and 169 school administrators in Maryland reported similar results.

Horne (1979) in her review of literature on teachers' attitudes toward integration concluded that even though teachers and others in society may interact more positively with handicapped individuals, the social distance has not changed. These attitudes and possible causes need to be recognized if there is to be improvement in the interaction of handicapped individuals with other members of society and with teachers, administrators, and peers in our school systems (Horne, 1979).

Inservice Programs

If labeling, expectations, and student preference affect teacher attitudes toward handicapping students, what will change those attitudes or create positive attitudes? Several variables appear to create a more positive attitude toward integration. Inservice

training, knowledge and experience, and the administration of education programs for the handicapped have all resulted in more positive attitudes toward integration (Bertness, 1976; Harasymiw and Horne, 1976; Horne, 1979; Johnson and Cartwright, 1979; Klein, 1975; Mandell and Strain, 1978; Nielson, 1979; Pietroski, 1979; Schorn, 1976; Twitty, 1976; Yaffee, 1979).

The attitudes of teachers toward integration were improved as a result of an inservice program that involved classroom experiences with and knowledge about special needs students (Bertness, 1976; Harasymiw and Horne, 1976; Mandell and Strain, 1978; Pietroski, 1979; Twitty, 1979; Yaffee, 1979). Harasymiw and Horne (1976) in their study of 352 urban school teachers included 191 experimental teachers who were part of inservice training. The experimental teachers had more positive attitudes about integration than the 161 control teachers. Mandell and Strain (1978) reported from a study of 90 regular classroom teachers, 54 principals, and 51 special education teachers that inservice training was one of the variables that created a more positive attitude toward integration. Pietroski (1979) studied 55 regular classroom elementary teachers and 54 regular classroom high school teachers in a Boston suburb, who were part of a mandatory inservice program on mainstreaming. She discovered that the inservice training created a positive influence on the classroom teachers' attitudes toward integrating. Programs designed to meet the needs of individual teachers and consulting services for teachers who had handicapped students in regular classrooms resulted in positive attitudes toward mainstreaming (Nielson, 1979; Schorn, 1976). Schorn

(1976) studied the process of consultation with 49 regular classroom teachers from rural schools who participated in his project. The teachers had no formal special education training. All had a minimum of two special needs students in their classrooms. The focus of the consultations were on the teachers' needs rather than the students'. The inservice consultation project did improve the attitudes of the teachers toward integrating handicapped students.

Shotel, Iano and McGettigan in their study of 115 teachers (1972) measured teachers' attitudes at the beginning of a school year when integration was begun and at the end of the year of integration. At the beginning of the school year, elementary classroom teachers were optimistic about integrating handicapped students into their classrooms; however, as the year progressed their positive, optimistic attitudes decreased. The preparation for the integration took place at the beginning of the school year. Once the program began, there was little support from other educators for suggestions and management of the situation. Shotel, Iano, and McGettigan (1972) stated that inservice workshops throughout the year may have helped the teachers retain their initial optimism. They concluded that continuing inservice workshops were important for an effective mainstreaming program within a school system.

Researchers who have conducted studies on the attitudes of teachers toward integration have found that inservice training did help create positive attitudes toward it. Shotel, Iano, and McGettigan (1972) have indicated that the lack of inservice training has created negative attitudes toward the integration process.

Knowledge and Experience

The relationship of knowledge and/or experience in creating positive attitudes toward integrating handicapped students into regular classrooms has also been investigated. According to Mandell and Strain (1978), practical experiences with handicapped children must be provided if teachers are going to develop positive attitudes toward the handicapped. Team teaching and inservice programs were combined to provide knowledge about and experience with teaching special students. Mandell and Strain (1978) emphasized that the teachers believed having the skills to diagnose learning and behavior disorders was a significant factor in having positive attitudes toward integration.

Other researchers (Johnson and Cartwright, 1979; Klein, 1975) concluded that the combination of teaching exceptional students and taking courses which provided knowledge about exceptional students resulted in the most favorable attitudes toward integration. Neither experience with special needs students nor taking courses relating knowledge about special needs students in isolation had any supportive affect on teachers' attitudes. Stephens and Braun (1980) found from their study of 795 teachers in the Southwest Cook County (Illinois) Cooperative for Special Education that regular classroom teachers' willingness to integrate handicapped students into regular classrooms increased as the number of special education courses increased.

Lack of knowledge about the handicapped created negative experiences for teachers who mainstreamed handicapped children (Shotel, Iano, and McGettgan, 1972). Hiroshoren and Burton (1979) reported

similar findings from the three studied they analysed stressing that at the beginning of the process the teachers were eager to have a positive experience, but without continued support and knowledge of the handicapped, the experience became negative.

The combination of knowledge about the handicapped and experience with the handicapped has created more positive attitudes toward integration. Neither knowledge nor experience alone created more positive teacher attitudes toward integration and in some cases experience alone caused negative attitudes to develop.

Administration of Educational Programs for the Handicapped

The process of administering educational programs for the handicapped is another area that affects teachers' attitudes toward integration. Mandell and Strain (1978) in their study of 90 regular classroom teachers, 50 principals, and 51 special education teachers reported that there was no significant relationship between principals' attitudes toward mainstreaming and teachers' attitudes toward mainstreaming. The reason Mandell and Strain cited as causing that discrepancy was the different role of each. Principals were seen as managers, but teachers were dealing directly with the students. Principals were making the decisions, but teachers were implementing those decisions. The study reflected the importance of cooperation and communication between administrators and staff members. Twitty (1979) in her study had results that agreed with Mandell and Strain (1978). Similarly, Hughes (1978) stated that mainstreaming does not occur in a vacuum, but was part of the whole system and has to be integrated into the operation of the entire school.

School systems which have reported success with mainstreaming attribute success to the process by which integration was administered. In Richardson, Texas, the management of authority was decentralized to the individual schools. Faculty and administration of each school were given authority to plan inservice programs and use funds however they felt were appropriate for that school (Birch, 1978). In Madison, Wisconsin, the entire staff cooperated with professors from the University of Wisconsin. The professors were used as resource personnel for the administration and teachers. Mainstreaming was considered a success in Madison (Birch, 1978).

Yaffee (1979) reported that in Colorado Springs mainstreaming has been in effect for about 20 years, and has been successful because it was administered efficiently and was given support from the special education personnel. Another school district that successfully mainstreamed handicapped students was the Tacoma, Washington district. The entire staff of each school was responsible for the integration of the handicapped students into regular classrooms--not just the classroom teacher (Bertness, 1976).

In a study conducted by Harasymiw and Horne (1976), the success of the integration process was partially attributed to the support given to the teachers by the school administration. In a comparison of principals', regular classroom teachers' and special education teachers' perceptions toward administrative practices regarding integration, Amos and Lamar (1977) reported that if mainstreaming were to be successful all three groups must be knowledgeable concerning the physical, psychological and social needs of the handicapped. Staff

development for administrators and faculty was found to be essential for successful mainstreaming of handicapped students (Amos and Lamar, 1977). From a study of 61 teachers, Moore and Fine (1978) reported that the availability of resource personnel made integration of handicapped students significantly more acceptable to regular classroom teachers than having no such support system.

It appears from the research that the cooperation and involvement of the school administration did affect the overall success of a mainstreaming program. Closely related to this was the teachers' need for resource help from special education personnel.

Demographic Influences

In addition to the previously discussed variables, some demographic variables have been investigated in relationship to successful mainstreaming. Pietroski (1979) determined from her study that age, sex, educational degree, and number of years of teaching experience had no significant effect on classroom teachers' attitudes. Having a handicapping condition, having social contact with handicapped individuals, or having family members or peers who had handicapping conditions made small contribution to the classroom teachers' attitudes (Pietroski, 1979). Stephens and Braun (1980) concluded that sex, age, marital status, number of years since obtaining a college degree, number of years of teaching experience, having handicapped children in the family or neighborhood did not significantly relate to the classroom teachers' attitudes.

Other investigators have determined that sex, age, number of years of teaching experience, degree level, the number of special education courses taken and inservice program participation showed no relationship between teachers' positive or negative attitudes toward mainstreaming (Kendall, 1979). The studies conducted by Kendall (1979), Pietroski (1979), Stephens and Braun (1980) determined that sex, age, and number of years of teaching experience had no significance toward influencing teachers' attitudes toward integration. However, Mandell and Strain (1978) and Twitty (1979) concluded from their studies on classroom teachers' attitudes, that the more years of teaching experience, the more negative were the teachers' attitudes toward integration. Mandell and Strain (1978) reported that having previous special education teaching experience was significant in creating positive attitudes for classroom teachers. However, in her study, Twitty (1979) concluded that there was no significant relationship between special education teaching experience and teachers' positive attitudes toward the integration of handicapped students. Twitty (1979) also concluded that personal experience did help create positive attitudes of teachers toward integration. This was opposed to the conclusions drawn by Pietroski (1979) and Stephens and Braun (1980) in their studies. Twitty (1979) also disagreed with Stephens and Braun (1980) on the grade levels teachers were teaching and their attitudes toward integration. Stephens and Braun (1980) concluded that primary and upper elementary teachers were more favorable toward integration than junior high school teachers. Twitty (1979) found no

significant relationship between grade level taught and the attitudes of classroom teachers toward integration.

Two demographic variables were consistently found by the researchers not to affect integration. They were sex and age.

Preservice Teachers' Attitudes

The importance of future teachers' attitudes toward the integration of handicapped students into regular classrooms and the importance of instructing preservice teachers in the area of handicapping conditions and individual differences has been affirmed by many educators (Arends and Arends, 1978; Birch, 1975; Corrigan, 1978; Erickson, 1977; Horowitz, 1977). All preservice teachers should be prepared to handle mainstreaming (Paul, Turnbull and Cruickshank, 1979). Preservice teachers must be prepared to teach all ranges of abilities and conditions; therefore, learning about children with handicapping conditions must be included in the college training of all teachers (Bertness, 1976).

In the studies examined, the need for learning about individual needs and instruction was emphasized (Cole, 1978; Middleton, Morsink, and Cohen, 1979). In a study of 196 recent college graduates who presently held teaching positions, Middleton, Morsink, and Cohen (1979) examined areas that the teachers indicated needed strengthening. The area designated by the teachers as the greatest need was individualized instruction for all types of students. Paul Turnbull, and Cruickshank stated:

Educators who acquire these skills during preservice training will have the competencies enabling them to be successful in their initial mainstreaming encounters. Initial success often fosters positive attitudes and self confidence on the part of educators which can contribute to successful outcome of mainstreaming (Paul, Turnbull, and Cruickshank, 1979, p. 114).

Despite a consensus among experts on the importance of instructing preservice educators about all types of children and children's needs, the majority of institutions of teacher education has not been meeting these needs. In a survey of 178 teacher institutions, thirty-four percent required special education courses at the elementary level and twenty-four percent required special education courses at the secondary level (Vacc and Suny, 1978). According to Birch (1978) even though school teachers and administrators have become increasingly familiar with the needs of exceptional children, a minority of preservice teachers has received instruction in this area.

In a study of 235 college students conducted by Baker and Montemurro (1974), preservice teachers at both the elementary and secondary level completed a survey concerning their attitudes toward integrating handicapped students into the regular classroom. The initial response toward integration was positive. The students then took a course that provided information about handicapping conditions and characteristics of learning styles of handicapped students. A post test was given at the conclusion of the course. The researchers reported that the students had even more positive attitudes about integration than before the course was given.

Several conclusions can be drawn from the information on preservice education. The experts agreed on the necessity of preservice

