



Attitudes towards mainstreaming of elementary students with handicaps in selected Montana schools
by Carol K Ruf

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education
Montana State University

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Abstract:

This study measured attitudes of elementary teachers and principals towards mainstreaming of special education students. The comparison group consisted of rural, Montana school districts involved in the Northwest Regional Educational Laboratory Onward to Excellence program (OTE). The control group consisted of school districts not involved in the OTE program. Independent variables were: position, individual's education level, gender, experience with mainstreaming of special education students, and the district's participation or nonparticipation in the OTE program. The dependent variable was attitude toward mainstreaming of special education students as measured by the Attitudes Toward Mainstreaming Survey (Berryman, Neal, & Robinson, 1980).

Survey scores were reported by total score and subtest scores for learning capacity, general mainstreaming, and traditional limiting areas. Two-way analysis of variance and multiple regression statistics were computed.

The conclusions of this study include: (a) principals were more positive toward the concept of mainstreaming students than were teachers; (b) participation or nonparticipation in the OTE program did not affect one's attitudes; and (c) variables affecting one's attitudes include years' experience in education, number of special education credit hours, experience with mainstreaming during 1988-89, and subject taught.

Additionally, the type of handicap was a factor in determining one's attitudes. Respondents were in favor of mainstreaming students who were not intrusive to the academic environment. Students with handicaps which could pose a disruption, such as those students with behavioral problems or learning disabilities, were not viewed favorably as candidates for mainstreaming.

The following recommendations were made. Increased special education knowledge is needed for teachers and students enrolled in teacher training programs. The administrator should serve as a role model and provide leadership in this area. Cooperative teaching and consultation was also recommended.

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ELEMENTARY STUDENTS WITH HANDICAPS
IN SELECTED MONTANA SCHOOLS.

by

Carol K. Ruf

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APPROVAL

of a thesis submitted by

Carol K. Ruf

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.

13 November 1989
Date

Leroy J. Casagrande
Chairperson, Graduate Committee

Approved for the Major Department

November 13, 1989
Date

Donald Robson
Head, Major Department

Approved for the College of Graduate Studies

November 27, 1989
Date

Henry T. Parsons
Graduate Dean

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Carol K Ryf

Date

November 13, 1989

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ABSTRACT

This study measured attitudes of elementary teachers and principals towards mainstreaming of special education students. The comparison group consisted of rural, Montana school districts involved in the Northwest Regional Educational Laboratory Onward to Excellence program (OTE). The control group consisted of school districts not involved in the OTE program. Independent variables were: position, individual's education level, gender, experience with mainstreaming of special education students, and the district's participation or non-participation in the OTE program. The dependent variable was attitude toward mainstreaming of special education students as measured by the Attitudes Toward Mainstreaming Survey (Berryman, Neal, & Robinson, 1980).

Survey scores were reported by total score and sub-test scores for learning capacity, general mainstreaming, and traditional limiting areas. Two-way analysis of variance and multiple regression statistics were computed.

The conclusions of this study include: (a) principals were more positive toward the concept of mainstreaming students than were teachers; (b) participation or nonparticipation in the OTE program did not affect one's attitudes; and (c) variables affecting one's attitudes include years' experience in education, number of special education credit hours, experience with mainstreaming during 1988-89, and subject taught.

Additionally, the type of handicap was a factor in determining one's attitudes. Respondents were in favor of mainstreaming students who were not intrusive to the academic environment. Students with handicaps which could pose a disruption, such as those students with behavioral problems or learning disabilities, were not viewed favorably as candidates for mainstreaming.

The following recommendations were made. Increased special education knowledge is needed for teachers and students enrolled in teacher training programs. The administrator should serve as a role model and provide leadership in this area. Cooperative teaching and consultation was also recommended.

CHAPTER I

INTRODUCTION

The history of public education in the United States began with the Massachusetts School Law of 1642 (Campbell, Cunningham, Nystrand, & Usdan, 1975) which mandated public supported education for children in communities of more than 50 householders. Supported by public monies, the schools were, in reality, teaching religious doctrine. These essentially private or church schools continued until the beginning of the 19th century when the demand for public schools began (Campbell et al., 1975). Thomas Jefferson was the first person to propose a free public elementary education for all, but it was not until Horace Mann and the Common School movement that this was to become a reality. From this simple start, America has become a nation with public school education available for all its children.

While state laws vary, all mandate a minimum amount of compulsory education. Massachusetts was the first state to mandate attendance with the passage of a state law in 1852. By 1918 when Mississippi mandated compulsory attendance, all 48 states had such statutes. Alaska and Hawaii also had such laws in force when statehood was

granted and, as a result, all 50 states had statutes addressing compulsory education (Campbell et al., 1975).

The history of public school special education has not been as long as that of general public school education. With the emergence of state laws mandating school attendance and the increasing number of students attending, the structure of the school changed to accommodate the influx of students with highly disparate backgrounds. A tracking system was developed to include the gifted, the retarded and behavior disordered, and the non or limited English speaking students (Kauffman, 1981). Kauffman states that "by 1950, special education was an identifiable and nearly ubiquitous part of public education, at least in large cities" (p. 7).

Mackie, as cited in Cruickshank (1975), reported that in 1948, 377,615 handicapped students were enrolled in local public schools. The largest category was speech impaired. Other categories were visually handicapped, hearing impaired, crippled and special health (sic), emotionally disturbed and socially maladjusted, mentally retarded, and gifted. Mackie noted that in 1958, 889,560 local public school students enrolled in special education were counted. The upward trend continued with the 1963 report of 1,570,370 students identified and another increase in 1966 to 1,978,900 students enrolled in special education.

Perhaps special education was an "ubiquitous part of public education" as described by Kauffman, but Meisel (1986) perceived it differently. He noted "segregation had always been a sine qua non of special education" (p. xiii). Historically, the assumption was that special children needed specially trained teachers to deliver the special curriculum in special classrooms. Meisel (1986) believed this pattern of service delivery, with no empirical data to substantiate the assumption, would have continued had not shifts occurred in American education.

Meisel links the changes in special education to changes occurring in regular education in the late 1950s and early 1960s. He (1986) stated that:

By the early 1960s, however, a combination of rising education standards, widespread use of norm-referenced standardized tests, and escalating school enrollments caused the population of underachievers to swell to the point of attaining national scandal status. (p. xiii)

It was from this pool of underachievers that special educators sought their clientele. Learning disabilities as a handicapping condition was established in 1963. At that time the national total numbered 13,434 students, increasing to 19,800 students in 1966 (Martin cited in Cruickshank, 1975).

The message that underachievers were suffering from "hidden" handicaps found receptive audiences among administrators and teachers. Meisel (1986) observed that

by 1970 special education was a second education system almost everywhere in the United States. Possessing its own bureaucracies at local, state, and federal levels, special education had also generated a separate system of training teachers with its own professional journals and organizations.

In 1975, with the passage of P.L. 94-142, the Education for All Handicapped Act, a free, appropriate, public education was mandated for all handicapped children (Jones, 1981). This law validated special education as a component of the public education system in the United States.

Seven years after the passage of P.L. 94-142, the first of the national educational reform reports, A Nation at Risk: The Imperative for Educational Reform (1983), was released. This was followed by Boyer's (1983) High School: A Report on Secondary Education; Goodlad's (1984) report, A Place Called School; and Sizer's (1984) report, Horace's Compromise: The Dilemma of the American High School. These reports examined the curricula and achievements of the elementary and secondary schools, but none specifically addressed special education. Also, in making recommendations for the improvement of education in the United States, none addressed special education specifically (Boyer, 1983; Goodlad, 1984; Sizer, 1984).

This omission was of a critical nature for two reasons. First, the reform reports resulted in attention being focused on the educational system with pressure to improve the system being exerted by local, state, and federal organizations. Enrollment in special education continued to increase, as Jones, Acting Secretary of the United States Department of Education, noted: "The slight increase reported for school year 1983-84 continues the trend of a gradual increase in the child count since 1976-77" (U.S. Department of Education, 1985, p. 1). The report also stated that 10.89% of all school children enrolled in the 50 states and the District of Columbia during the year 1983-84 were identified as handicapped and received special education services.

The most current statistics indicate:

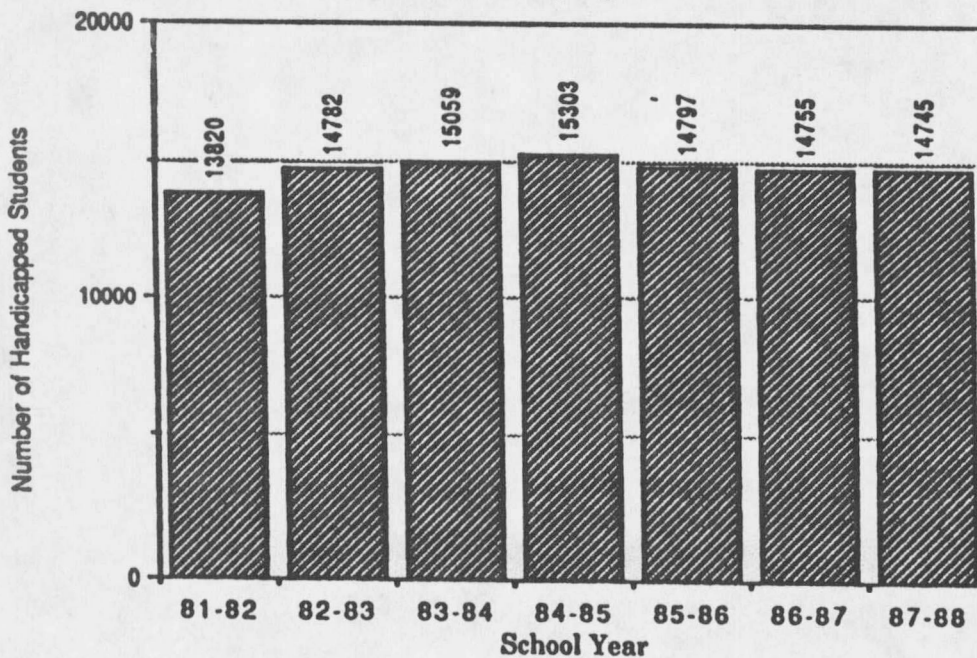
Over 650,000 more students are being served now than when the law was enacted. During the 1986-87 school year, 4.42 million students, from birth through 21 years of age, were served. After several years of stability, this represents a 1.2% increase over the 1985-86 school year. In total, this is approximately 11% of the overall public school enrollment. (Tenth Annual Report, 1988, cited in Lipsky & Gartner, p. 8)

Concomitantly, as the federal special education child count increased, so did the count for the State of Montana. The years 1981 to 1988 saw an increase in student enrollment in special education from 13,820 students identified in the 1981-82 official child count to 15,090 students identified in the 1988-89 official child

count. Enrollment in Montana public school special education programs for 1981-88 are displayed in Figure 1.

Figure 1

**Handicapped Students in Montana
Receiving Special Education Services
1981-1988, Ages 3-21**



1A

Current data indicates special education enrollment in Montana was 9.54% (Montana State Office of Public Instruction [OPI], 1988) of total school enrollment for the school year 1988-89. In contrast, during the same year, the national average of children enrolled in special education was 10.56%.

The effective schooling research has identified characteristics of effective schools. Use of these characteristics by teaching and administrative staff is

intended to result in improvements in student achievement and behavior (Blum, 1987; Rosenholtz, 1985). Rosenholtz (1985) argued effective schools are those in which "teachers have specific, concrete goals toward which to direct their efforts and know precisely when those efforts produce the desired effects" (p. 355). Blum (1984) identified components of an effective school as

. . . elements of schooling associated with a clearly defined curriculum; focused classroom instruction and management; firm, consistent discipline; close monitoring of student performance; and strong instructional leadership. (p. 1)

The Northwest Regional Educational Laboratory has incorporated these components into a program called Onward to Excellence: Making Schools More Effective (OTE). The purpose of this program is to provide schools with a "systematic, research-based approach to improvement of student performance" (Blum & Butler, 1987). Currently, the Northwest Regional Educational Laboratory is conducting inservice to personnel in rural school districts in Montana. The districts have committed to a three-year program of self-study with the goal of increasing student achievement.

Purkey and Smith (1983), in examining the characteristics of effective schools, concluded that two types of schools existed. The first group identifies characteristics which can be implemented at the administrative level. Several of the characteristics

include: "school-site management and democratic decision making; leadership; staff development; maximized learning time; and district support" (p. 358). The second group receives impetus from these characteristics which allows the school's culture to be developed and the climate to be determined.

Statement of the Problem

A question that remained unanswered in the literature was whether mainstreamed students receiving special education services received fewer services as time and resources were used to increase the achievement levels of the general education students.

The problem of this study was to determine if a difference existed in the attitudes held by elementary principals and teachers toward mainstreamed elementary students in schools which had implemented the Onward to Excellence process as compared to attitudes toward mainstreamed elementary students held by elementary principals and teachers in schools which had not implemented this process.

Need for the Study

The effective schools research indicates that effective schools are those schools in which a high degree of student achievement is expected and accomplished

(Purkey & Smith, 1985; Rosenholtz, 1985). As these expectations are voiced, one must ask the question: Are the students in special education services expected to increase their achievement level?

The reform reports stressed repeatedly the need for an added emphasis on the core academics and increased demands for higher standards of students in these courses. The students receiving special education services, however, have limited abilities in these areas. A need to determine if special education students benefited from the emphasis on effective school practices existed. Pugach and Sapon-Shevin (1987), in analyzing school reform and special education practice and policy, stated:

It is essential to consider the relationship between general and special education. . . . and to analyze the impact of proposed reform in general education on students who are currently identified as 'handicapped' and are now receiving special education services. (p. 295)

Berryman, Neal, and Robinson (1980), in assessing attitudes of regular education teachers toward integration of handicapped students, noted:

Implications of the effect of attitude upon subsequent behavior are sufficiently strong to warrant investigation into current attitudes toward mainstreaming and subsequent changes in attitudes in this area with various groups. (p. 202)

Further, they stated:

A potentially valuable use of the scale would be the identification of influences, such as administrative

policies, external regulations, and personal traits of educators, on attitudes toward mainstreaming. (p. 202)

This study investigated the attitudes held by teachers and administrators regarding the mainstreamed special education student. This data provided additional information for those persons using the effective schools research and involved in the education of mainstreamed special education students. This study assisted educational leaders in

. . . that school improvement projects are in place and are growing in number, the need now is for research that examines closely the process, content, and long-term outcomes of effective schools projects. (Purkey & Smith, 1985, p. 356)

Questions to be Answered

This study contributed data to answer the following questions:

1. Did principals in schools which had instituted the Onward to Excellence process have different attitudes toward mainstreamed special education students than those principals in schools which had not instituted this process?

2. Did teachers in schools which had instituted the Onward to Excellence process have different attitudes toward mainstreamed special education students than teachers in schools which had not instituted this process?

3. Did a difference exist between teachers' attitudes and administrators' attitudes toward mainstreaming of special education students?

4. Did the independent variables of experience with mainstreaming, credit hours in education or special education, current or previous experience with mainstreaming, grade level taught, or years' experience account for the variance in the dependent variable?

General Procedures for the Study

Stanley and Campbell's (1963) description of the static group design was the basis for the design used in this study. This design compares two groups, one of which has received an experimental treatment. The purpose of the comparison is to determine the effect of the experimental treatment. The experimental group in this study was the schools involved in the Onward to Excellence program during its second year cycle. The control group was composed of schools not involved in the Onward to Excellence program.

All districts using the Onward to Excellence program, as developed by the Northwest Educational Research Laboratory, were asked to participate. This group participating in the OTE program were members of the Montana Small Schools Consortium and in the second year of the OTE program. Seven school districts with a total of

eight schools were participants. This experimental group was compared to a control group of seven schools drawn randomly from the group of districts which had not adopted the Onward to Excellence program. The schools were matched using the criteria of district size; Class I, II, or III as determined by the Montana Office of Public Instruction (Erdie, 1987).

Initial contact was made by mail with all elementary and middle school principals in the districts selected for the study. Administrators were asked to indicate their willingness to have their staff and themselves participate in the study. Elementary teachers and administrators in each district were asked to complete the Berryman et al. (1980) Attitudes Toward Mainstreaming Scale (ATMS) at a regularly scheduled staff meeting, place the completed questionnaire in an envelope, seal the envelope, and return the sealed envelope to the principal. The principals then mailed the sealed envelopes to the researcher.

Treatment of the Data

The data were analyzed using the Montana State University mainframe computer and the Statistical Package for Social Sciences (SPSSX, 1986). Two-way ANOVAs and multiple regression statistics were computed.

One multiple regression equation was analyzed. Each of these variables was analyzed as the dependent variable. A stepwise regression was used to determine which variables accounted for the variation in the dependent variable. Item analyses of the ATMS were performed.

The data were checked for accuracy before and after the computer printout was available. After computing the statistics, the data were again checked for accuracy.

Limitations

1. Only those schools participating in the Northwest Regional Laboratory's Onward to Excellence program for rural schools were included in the effective schools group.
2. Schools choosing to participate in the study did so on a voluntary basis.
3. Schools participating in the OTE programs did so voluntarily.

Delimitations

1. This study was confined to elementary and middle schools in Montana.
2. Participation in this study was voluntary on the part of all administrators and teachers.
3. Causation cannot be assumed as a result of this study.

Definitions

1. Special Education. "A subsystem of the total educational system for the provision of specialized or adapted programs and services or for assisting others to provide such services for exceptional youth and children" (Gearheart, Weishahn, & Gearheart, 1988, p. 397).

2. Mainstreaming. "Placing exceptional students in regular classes using the concept of least restrictive environment" (Gloeckler & Simpson, 1988, p. 426).

3. Onward to Excellence. A training program for school leaders developed by the Northwest Regional Educational Laboratory which enables local schools to apply effective schooling research to meet local needs (Blum, 1984).

4. Class I School District. A school district with a population of 6,500 or more (School Laws of Montana, 1987, MCA. 1987, 20-6-201).

5. Class II School District. A school district with a population of at least 1,000 but no more than 6,500 (School Laws of Montana, 1987, MCA. 1987, 20-6-201).

6. Class III School District. A school district with a population of less than 1,000 (School Laws of Montana, 1987, MCA. 1987, 20-6-201).

7. Learning Capacity. "Statements constituting this factor deal with disabilities that do not necessarily impede academic progress" (Berryman et al., 1980, p. 201).

8. General Mainstreaming. "This factor includes statements on the general topic of mainstreaming as well as statements on the disability categories of educable mentally handicapped and social emotional problems" (Rajchel, 1982, p. 20).

9. Traditional Limiting Disability. "This factor comprises statements about disabilities which have historically not been present in the regular classroom, such as blind, hearing impaired and deaf students" (Rajchel, 1982, p. 20).

10. Attitude. "A state of mind of feeling with regard to some matter" (American Heritage Dictionary, New College Edition, 1980). For purposes of this study, attitude toward mainstreaming of special education students is measured by the respondents' scores on the total test and sub-tests of the ATMS questionnaire.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

With the publication of the major reform report, A Nation at Risk in 1983 (National Commission on Excellence in Education), the state of American education became the focus of discussion in the United States. This report was the first to bring to light, with clear, concise prose, the issues affecting education and its impact on the position of the United States in a global economy.

Following publication of this report, three additional major reports were issued during this first wave of reform (Boyer, 1983; Goodlad, 1984; Sizer, 1984). Coupled with these reports were data from research documents which identified characteristics of effective schools and administrators in those schools. The mode of thinking was focused on the "excellence reports" and upgrading standards to meet the demands of life in a more complex era.

Raising standards, longer school days, and more intense study of certain subjects became the call to excellence. As the attention focused on the upper end of

the achievement scale, the special education curricula and mainstreamed students were left out (Pugach & Sapon-Shevin, 1987).

This review of the literature will discuss research reports concerning effective schools and excellence practices, and effects of attitudes of those working with mainstreamed special education students.

Special Education

Kauffman (1981) stated that the early education of the handicapped population dealt with those who were obviously different. He credited Jean-Marc-Gaspard Itard and his work with the "wild boy of Aveyron" (p. 4) as the beginning of modern special education for the handicapped. As a result of Itard's attempts to educate this boy, information and methods of teaching the handicapped spread. Schools and institutions directed toward the needs of the blind, deaf, severely retarded, and seriously disturbed populations came into being.

Gearheart et al. (1988) characterized the 19th century as an era of institutions, stating "such practice kept these undesirable or physically unattractive persons out of the public eye and thus off the public conscience" (p. 8). Kauffman (1983) had a more optimistic view of the 19th century noting that the early 19th century was regarded as a period of "buoyant optimism" for the

education of handicapped. During this period many public and private residential schools were established and new methods and techniques implemented. However, the latter half of the 19th century witnessed a decline of the education of the handicapped, influenced in part by the end of the Civil War, the influx of immigrants, and the urbanization and industrialization of the United States work force. Also, society was experiencing a shift to reliance on newly developed scientific theory purporting the environmental and genetic influences on the human organism and the predictability and unchangingness of one's mental and emotional state (Kauffman, 1983).

However, developments in social policy were occurring which influenced special education. As the nation's education system became larger and more complex, new procedures were being instituted in the late 19th century. Among these new policies was compulsory attendance for children. Lazerson (1983) credited the enforcement of compulsory attendance policies as providing the impetus for special education. Additionally, tracking systems were established, teacher training became commonplace, and special training for teachers working with handicapped students was being conducted (Kauffman, 1983).

Alexander Graham Bell, addressing the National Education Association in 1898, suggested the building of an annex to the public school to provide special classes

for the deaf, blind, and the mentally retarded (Gearheart et al., 1988). Thus, a new era was beginning, the era of the special class, as Gearheart et al. (1988) identified the period from 1900 to the 1960s and 1970s. The special class was one in which a specially trained teacher provided instruction to students, usually mentally retarded, in a classroom separate from the non-handicapped students. Regular education students and teachers had little or no contact with students in these special classes. These special classes served primarily the retarded, but served children with other problems also.

The beginning of the 20th century saw an increasing interest in the health, welfare, and education of children. Influenced by a flood of immigrants, the development of intelligence tests, the rise of organized labor and child labor laws, advancing technology, and world war, the educational system, particularly the special education system, was once again undergoing change (Kauffman, 1983). "In short, between 1901 and 1950 special education became an identifiable and nearly ubiquitous part of public education, at least in large cities" (Kauffman, 1983, p. 7). After mid-century, the majority of the 48 states had laws providing for the education of the handicapped, usually the mildly handicapped. However, only a small percentage of the handicapped students were being educated. Of handicapped

students eligible for special education, Blake (1981) estimated "that by the late 1970s about 7.4% were being served" (p. 8). Kauffman credits the growth in special education since the 1950s to social change and parental involvement.

Gearheart et al. (1988) identified the period 1960 to the present as the era of accelerated growth, stating: "Truly rapid growth, unparalleled in history, began in the late 1960s, with the period of most concentrated growth between 1965 and 1980" (p. 11). Changes noted during this time were increased acceptance of handicapped students, more positive attitudes on the part of educators regarding responsibility for teaching the handicapped students, and legal actions of courts and government legislation.

Special education services for handicapped children have been mandated for children in public schools for the past 14 years. The passage of the 1975 Education for All Handicapped Children Act, Public Law 94-142, changed dramatically the requirements for educating handicapped children. Passage of this law guaranteed the availability of a free, appropriate, publicly supported education for all handicapped children. Section 4 of PL 94-142 defines handicapped children as

. . . mentally retarded, hard of hearing, deaf, orthopedically impaired, other health impaired, speech impaired, visually handicapped, seriously

emotionally disturbed or children with specific learning disabilities who, by reason thereof, require special education and related services.

Special education is defined by Section 4(a)(16) of PL 94-142 as

. . . specially designed instruction at no cost to parents or guardians, 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 law had four basic provisions. All handicapped children must receive a free, appropriate, publicly supported education; the education must be provided in the least restrictive environment; an individual education plan must be designed to meet the student's unique educational needs; and the student's due process rights must be assured (Jones, 1981).

The term "least restrictive environment" has become synonymous with mainstreaming. The term "mainstreaming" is misleading in that the perception of all students being required to participate in regular classroom activities is not the case. Least restrictive environment refers to a continuum of services, one of which is the regular classroom. These services vary from full time hospital or treatment center care to that which is found more commonly in the public schools, regular classroom instruction with resource room support services.

Jones (1981) described the concept of least restrictive environment as going beyond placement. He

considered the academic, social, physical, psychological, and medically related needs of the students and concluded the "least restrictive environment becomes the most productive environment for the child" (p. 67).

The individualized educational program for handicapped children is an important component of the law. Here the educational program is designed which best meets the needs of the handicapped child and is educationally appropriate. By law, parents, teachers, administrators, and other individuals at the discretion of the parents or school are to participate in designing the program. Annual goals, short-term instructional objectives, current functioning level, specific educational services required and provided, beginning and ending dates of service, and a justification for the services must be developed (Jones, 1981).

The due process safeguards for handicapped children and their parents or guardians are clearly described. The guidelines are specific and include time lines to be met for hearings. Jones (1981) stated: "While the procedures are of great significance, in reality they merely call for fair play and parental involvement in decisions regarding a handicapped child" (p. 89).

Delivery of special education varies as to the need of the student and the student's teacher, but certain generalizations are possible. Consultation services

provided by the special educator to the classroom teacher are one method. The itinerant-teacher plan is another method where the student is enrolled in the neighborhood school and he and his teachers receive services from a visiting special education teacher. The resource room model, the most commonly used model, is one in which the student is enrolled in a regular classroom and receives regularly scheduled services from a special education teacher. More restrictive service delivery plans designed for the severely or multiply handicapped include special classes within the regular school and special class in a separate day school. Hospital, homebound, and residential services are also options for educating students with special needs (Gearheart et al., 1988).

Regardless of the delivery system, the question of least restrictive environment has been paramount when deciding appropriate placement for handicapped students (Horne, 1985; Jones, 1981; Larrivee, 1985; Meisel, 1986; Zigler & Hall, 1986). The intent of the least restrictive principle was to enable students to "receive services in an educational setting which is close to normal, i.e., the regular classroom" (Horne, 1985, p. 17). However, the intent of the law and the educators' attitudes can come into conflict.

Brophy, writing in the foreword of Larrivee's (1985) book, stated:

Dr. Larrivee found no contradiction between meeting the needs of the mainstreamed students and meeting the needs of the rest of the students in the class. In fact, although success with the other students was not necessarily associated with success with mainstreamed students, success with mainstreamed students nearly always was associated with success with the other students as well. Thus, teachers who were effective with their mainstreamed students also were effective with the rest of the class, and there appears to be no reason to fear that success with mainstreamed students will be achieved at the expense of the progress of their classmates. (p. viii)

Unequivocally, this statement placed faith in the continued practice of mainstreaming and confidence in teachers to educate all students to the best of their abilities.

Attitudes

Attitude has been defined in a variety of ways by researchers. Allport (1935) defined attitude as

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

Rosenberg and Hovland (1960) defined attitudes as

"predispositions to respond in a particular way toward a specified class of objects" (p. 1). Triandis (1971) took a slightly different view and defined attitude as "an idea charged with emotion which predisposes a class of actions to a particular class of social situations" (p. 2).

Triandis (1971) stated two themes were common to the term attitude--"An attitude is a predisposition to respond

and . . . is represented by consistencies in the response of individuals to social situations" (p. 7). Attitudes are described as being what people think about how they feel and behave toward an attitude object. Cooper and Croyle (1984) reviewed the literature and concluded the debate over affect and cognition is complete. They concluded that theories of attitudes predicting behaviors have been substantiated. While research has centered on the cognitive aspects, Cooper and Croyle predicted motivational factors will be exerting a pull on attitude changes in the future.

Triandis (1971) concluded that attitude consists of three components: affect, cognition, and behavioral intentions. The affect component is the result of classical conditioning which is the pairing of pleasant and unpleasant events. The resulting consequences of the pairing result is a certain pattern of behavior by the individual. The behavioral component is composed of overt actions which are dependent on the habits, norms, and other attitudes of the individual. This component predisposes one to action and emotion which changes ideas. The cognitive component is one in which events are paired with other events in the environment in which a person grows up. From this component of attitude is derived one's ideas. Inferences can be made from the consistencies of response to stimuli. Each component of

attitude involves interaction and interrelation of individual and environment.

Rosenberg and Hovland (1960) examined attitude and concluded stimuli produced attitudes which were composed of three aspects: affect, cognition, and behavior. The affect component is described as the sympathetic nervous system response to verbal statements. While the response "may be inferred from . . . blood pressure or galvanic response . . . more typically (it is) inferred from verbal statements of how much he likes or dislikes him" (p. 3). Rosenberg and Hovland described cognition as including "perceptions, concepts, and beliefs about the attitude object" (p. 4). Behavior is described as "how an individual will act toward a given situation . . . (or) says he will do" (p. 4).

The development of attitudes is the result of affect, cognition, and behaviors. The reason an individual develops a particular attitude, according to Triandis (1971), is to

. . . (a) help them understand the world around them by organizing and simplifying input, (b) protect self-esteem by making it possible for them to avoid unpleasant truths about themselves, (c) help them adjust in a complex world by making it more likely that they will react so as to maximize their rewards from the environment, and (d) allow them to express their fundamental values. (p. 4)

Attitudes are a factor in one's daily living and therefore play an important role in an educator's daily

interactions with students and staff. Larrivee (1985) examined the concept of mainstreaming and educators' reactions to this new policy and concluded:

The manner in which the classroom teacher responds to the needs of the special student is likely to be the single most potent variable in determining the success of mainstreaming. (p. xi)

Horne (1985) concurred, noting the importance of the educator's attitude when working with handicapped students, stating:

Many handicapped children are now being educated in regular classrooms in our public schools. Therefore, it is important that professionals not only be knowledgeable about prevailing attitudes of societal members toward handicapped students, but also that they become aware of procedures that may be used to measure and change attitudes. (p. ix)

Barngrover (1971) and Childs' (1981) research conducted prior to and at the beginning of the implementation of PL 94-142 assessed educators' preferences for mainstreaming special education students. Barngrover and Childs studied the mainstreaming of mentally retarded students and concluded elementary and secondary teachers preferred the students remain in a separate, special class. Childs also concluded the teachers felt inadequately prepared to teach handicapped learners and did not want special education students in the class. The mentally retarded students could not master the course content and regular education students did not want to

socialize with the other students; therefore, teachers did not want such students in class.

In determining educators' willingness to mainstream special education students, researchers noted educators questioning the efficacy of educating special education students in the regular classroom (Knoff, 1985; Myles & Simpson, 1989; Ringlaben & Price, 1981). Knoff surveyed regular and special educators as to their willingness to teach mainstreamed students. In general, the respondents

. . . all perceived special education classroom setting as more effective and more preferred than regular classrooms for the mildly handicapped. They agreed that regular teachers: (a) felt that they did not have the skills to help special education students . . . ; therefore (b) would work with special education teachers regarding specific students if time were available; but (c) would not be willing to accept exceptional children in their classroom if special education were discontinued. (p. 417)

Stephens and Braun (1980) assessed teacher knowledge of PL 94-142 by the number of special education classes taken. They found the teachers who had taken a greater number of special education classes indicated a greater willingness to accept placement of handicapped students. Horne (1983) investigated teacher attitudes toward mainstreamed students and discovered, of the teachers surveyed, 80% felt they lacked training in special education and 70% felt mainstreamed students would require significant changes in instruction. Horne also noted that teachers indicated they did not understand the legislation

and questioned the efficacy of classroom instruction, the teaching qualifications of resource room teachers, and their own willingness to make curricular changes.

(Study of a person's attitudes provides information regarding what an individual perceives as appropriate behavior for specific situations. Twitty (1979) analyzed factors that relate to the attitudes of regular education teachers toward mainstreaming of special education students.) Her study, which was conducted in the Frederick (Maryland) County School District, surveyed elementary classroom teachers, specialists, and administrators to assess their attitudes toward mainstreaming of special education students into the regular classroom.

Specific factors investigated in Twitty's study were: knowledge, experience, personal characteristics, and environmental conditions. One hundred forty-six elementary teachers were the subjects. The instruments used were the modified Deleo Scale and an informational questionnaire. Data were analyzed using a multiple regression analysis and a Person Product Moment Correlation (Twitty, 1979).

Twitty (1979) conducted this study by surveying 204 regular classroom teachers of which 146 responded (71.5% response rate). Participation was voluntary and teachers from 22 of 25 schools responded. A total of 169 other employees, administrators, special education teachers, and

subject specialists were also surveyed. The modified Deleo Scale was administered to all participants. The 47 item Likert Scale instrument was a modification of the 50 item scale developed by Deleo (1976). The scale had an overall reliability of .79.

(Twitty concluded that a positive relationship exists between a teacher's knowledge of a handicapping condition and attitudes toward handicapped students. Personal experience and self-education were also factors) influencing the teacher's attitudes positively.

(Gans (1985) studied regular and special education teacher attitudes to determine whether a difference exists in teacher attitude toward the integration of handicapped students into the regular education classroom). The method used was a questionnaire given to teachers in 26 schools in three northeast Ohio counties. The number of questionnaires was stratified on the basis of junior high or middle school composition and percent of teachers in the building as compared to number of teachers in the district. Each school building in the district did receive at least one questionnaire. The sample consisted of 278 regular educators based on control for gender, grade level, and subject area taught. All special education teachers in each district ($n = 218$) were sampled in order to obtain similar sample sizes. The return rate

was 52.4% with 128 regular educators and 133 special educators responding.

(The results of Gan's study indicated that the majority of the teachers (83%) felt they knew of other teachers who had been successful in integrating handicapped students into the regular education classroom and had been successful themselves. The special education teachers' responses concurred with regular education teachers' responses.)

In another study, Gans (1987) described attitudinal variables which may be important to the socialization of students. The results indicated the willingness of the regular educator to work with handicapped students tended to be shaped by variables associated with noneffective personal and career characteristics and procedural classroom concerns. The importance of increasing personal knowledge on the subject of handicapped children in classrooms may be overemphasized. Instead, establishing contacts with people having a wide range of disabilities may be more effective. The strongest predictor was the willingness to work with a wide range of conditions, not how strongly the teacher felt about working with handicapped children.

[Administrators' attitudes toward mainstreaming special education students have also been researched. Principals were found to be in favor of the concept of

mainstreaming (Guerin & Szatlacky, 1974; Prillaman, 1983). Prillaman surveyed administrators and found support for the placement of students in the regular classroom as benefiting the teacher personally and professionally. Respondents also felt placement in a regular class would be an asset to special education students resulting in the student being more productive and independent in society.

Position within the school system appears to be a factor in one's attitude toward the mainstreaming of special education students. [Principals have been found to have the most positive attitudes toward mainstreaming, followed by special education teachers, and then regular education teachers] (Gickling & Theobold, 1975; Morris & McCauley, 1977).

[Addressing this difference, Garvar-Pinhas and Schmelkin (1986) examined factors underlying attitudes toward mainstreaming.] They used a questionnaire which surveyed attitudes toward mainstreaming in four areas: (a) academic concerns, (b) socio-emotional concerns, (c) administrative concerns, and (d) teacher concerns. [The results of this study found the major differences in attitudes toward mainstreaming were in the areas of academic and administrative concerns.] Teachers were found to be generally negative toward mainstreaming. "The principal, by virtue of his or her leadership position,

must be considered a key person in instituting a successful program for those children with disabilities" (p. 6).

Garvar-Pinhas and Schmelkin (1986) conducted their study in Nassau and Suffolk counties, New York state. A sample of 248 regular classroom teachers, principals, special education teachers, and special education administrators responded to the Mainstreaming Questionnaire developed by the authors. A seven-point Likert-type scale format was used. Four factors, accounting for 76% of the variance, were used in the development of the sub-scales. Items loading at the .35 level were included in the sub-scale.

The factors were constructed into the following sub-scales:

1. Academic Concerns. Items in this sub-scale "dealt primarily with the possible detrimental effects of mainstreaming on the conduct of the regular classroom and on the academic progress of non-handicapped youngsters and on children with handicaps" (p. 11).

2. Socio-emotional Concerns. Items loading on this factor "reflected negative aspects of segregating students who are handicapped" (p. 12).

3. Administrative Concerns. This sub-scale consisted of items relating to "administrative concerns regarding mainstreaming" (p. 12).

4. Teacher Concerns. Items on this sub-scale consisted of "teacher concerns with such issues pertaining to support, positive contact and experience with youngsters who are handicapped, and in-service training" (p. 12).

Significant differences were found among the groups responding. The Academic Concerns sub-scale indicated regular education and special education teachers had less positive attitudes toward mainstreaming than did the two administrative groups. Garvar-Pinhas and Schmelkin (1986) concluded:

While the research on attitudes toward mainstreaming has led to conflicting results, it appears that these results tend to reflect the mainly negative attitudes of regular teachers toward the mainstreaming of youngsters with disabilities. (p. 16)

Larrivee and Cook (1979) identified five factors that may underlie attitudes toward mainstreaming: (a) general philosophy of mainstreaming, (b) classroom behavior of special education students, (c) teacher's perceived ability to teach special education students, (d) classroom management issues, and (e) academic level of the special education student.

Brophy and Good (1984) studied the teaching effectiveness of regular classroom teachers and determined that student achievement influences the attention which a student receives from the teacher. A low-achieving student is likely to receive decreased teacher attention

and, when it is given, the attention is likely to be negative in nature (p. 26). Research to date has not been completed as Larrivee (1985) noted:

Research to date in special education has limited application for determining specific teaching practices requisite for providing an appropriate education for the special child in the mainstream. (p. 3)

Reform Reports

The first reform report, A Nation at Risk, was released in 1983 by the United States Department of Education. This document was extremely directed in its references to improving education. The authors stated the charge of society to be one of "improving education for the benefit of all" (p. 7).

The charge of improving education had as its goal that of regaining America's competitive edge and preeminent status in the global community. While stressing excellence and addressing equity, the focus was on education as a tool to regain what America once possessed (National Commission on Excellence in Education, 1983).

Boyer's (1983) book, High School: A Report on Secondary Education in America, had a different view concerning improvements for education. Stating "it was our conviction that equality be advanced as the quality of education is improved for every student" (p. xii), Boyer's

perspective addressed those students who deviate from the norm. He devoted one chapter to gifted students and students who are considered high-risk--those in danger of dropping out but not receiving special education services.

In examining the push for excellence, Boyer (1983) stated, "To push for excellence in ways that ignore the needs of less privileged students is to undermine the future of the nation. Clearly, equity and excellence cannot be divided" (p. 6). This was one of the most direct references to those students who are at the lower end of the spectrum, whether they be in special education or not.

The third of these reform reports, Sizer's (1984) book, Horace's Compromise: The Dilemma of the American High School, was an analysis of the status and future of American high schools. He advocated the ideal high school as having levels instead of tracks as is now the case. He viewed the levels as being flexible, allowing the student to move within levels as achievement warranted. Additionally, Sizer was critical of the system of specialists, that is, teachers usually teaching one subject area, which is currently used in high schools today. He presented the ideal high school as having smaller classes with students remaining with individual teachers for longer periods of time and for more in-depth study.

Goodlad (1984), in his book, A Place Called School, focused on three themes which were

the . . . power of the schools to counteract the socioeconomic realities of the surrounding culture; . . . [the] premise regarding human learning on which schooling is conducted; . . . and . . . the practical possibilities of dealing with what appears to be a wide array of individual differences among those to be educated. (p. 160)

Through these themes he addressed the relationship between grouping for instruction and the real provision for individual differences. In addressing individual differences, Goodlad viewed tracking as a "retreat rather than a strategy" (p. 295). Also, he voiced concern about the competitive rather than cooperative nature of education.

Reviewing the reform reports, Pugach and Sapon-Shevin (1987) observed that the national reform reports had omitted reference to special education. They stated:

In conceptualizing comprehensive school reform, it is essential to consider the relationship between general and special education and those problems posed by the special education system as it is currently organized, as well as to identify changes in special education policy that have the potential to result in a more effective and efficient system of general education. (p. 295)

While the role of special education has not been examined and included in the scope of the current reform reports, Stainback and Stainback (1984) proposed special education and regular education be merged, arguing that there are not two types of students but, rather, all

students are individuals and differ along a continuum. This view conflicts with that of excellence. Yudof (1984) stated:

A society that values excellence (in the sense of improving education for the best and the brightest) may be unwilling to spend large sums on education for the handicapped. . . . Calls for excellence may cause a rechanneling of funds from remedial programs to programs for the gifted. (p. 459)

The organizational boundary between regular and special education hindered communication between special and regular education teachers resulting in a lack of understanding and coordination of efforts (David & Greene, 1983). Weatherley and Lipsky (1977) called this development "street level bureaucrats" (p. 172), whereby the individual is able to complete required tasks by finding ways to accommodate the demands placed on him while working within the constraints of limited resources. In calling for reform in the special education system, Weatherley and Lipsky stated:

An essential beginning in special education reform is the careful preparation of local personnel. Training classroom teachers to be better prepared and more confident in handling children with special needs is particularly important. (p. 195)

Effective Schools' Research

Purkey and Smith (1985), when comparing the effective schools movements to other educational panaceas noted that "the effective schools movement differs in several

important respects" (p. 355). The first difference is that the purpose of the reform movement deals with instruction. No matter what is accomplished, success is measured in terms of student learning. Second, the school provides the milieu for learning and instruction. Third, improvement strategies encompass the entire school, as improvements which fragment the school, or its programs are unlikely to be successful. Fourth, the attitude of staff is more important than physical facilities or equipment and supplies. Fifth, this program encourages the idea that all students can learn and schools must assume the responsibility for this learning.

The effective schooling research base identified practices and characteristics associated with measured improvements in student achievement and excellence in student behavior. These practices include elements of schooling associated with a defined curriculum, classroom instruction and management, discipline, and monitoring of student performance and instructional leadership (Blum, 1984). Loosely coupled (Weick, 1976), the effective schooling practices are being used as a method to bind certain elements of instructional leadership to student achievement in a goal-based program.

To assist educators with the process of improving student performance, the Northwest Regional Educational Laboratory has developed the Onward to Excellence Program

(Blum, n.d.). This program enables individual schools to make research-based decisions for the improvement of student performance. The effective schooling research base is the foundation for the Onward to Excellence program.

Effective schools research has focused on the components of effective instruction. Porter and Brophy (1988), co-directors of the Institute for Research on Teaching, have identified the following characteristics as fundamental to good teaching. Effective teachers

- are clear about their instructional goals
 - are knowledge-able about their content and the strategies for teaching it
 - communicate to their students what is expected of them--and why
 - make expert use of existing instructional materials in order to devote more time to practices that enrich and clarify the content
 - are knowledgeable about their students, adapting instruction to their needs and anticipating misconceptions in their existing knowledge
 - teach students metacognitive strategies and give them opportunities to master them
 - address higher as well as lower level cognitive objectives
 - monitor students' understanding by offering regular appropriate feedback
 - integrate their instruction with that in other subject areas
 - accept responsibility for student outcomes
 - are thoughtful and reflective about their practice.
- (p. 75)

Brophy, writing in the foreword of Larrivee (1985), summarized the effective teacher as having similar traits and abilities.

The teachers who were observed to be most successful both with mainstreamed students and with regular

students had high achievement expectations but combined with personal warmth and responsiveness to the students; organized and managed their classrooms as efficient learning environments that maximized student engagement in academic activities and minimized time spent managing transitions or responding to misbehavior; selected tasks that allowed the students to achieve continuous progress with high rates of success and minimal frustration and failure; and provided a balanced approach to instruction that included a great deal of active group teaching and recitation and discussion lessons in addition to individual seatwork. (p. ix)

Larrivee (1985) concurred, stating:

The effective teacher spends more time in group instruction, reducing the amount of time students spend working independently in small groups. The effective teacher also assigns more seatwork but individualizes assignments more. (p. 6).

Later Larrivee developed a tentative profile of an effective teacher. She described the effective teacher as one who asked lower order questions which were most often answered correctly. Positive feedback for correct answers, with supportive, clarifying feedback for incorrect answers, was given. The teacher was responsive to students and had high expectations for the student. Student on-task behavior was reinforced with students working at their individual levels and engaged in learning (p. 75).

Larrivee (1985) stated that a variety of methods are available for

. . . effective teaching behaviors derived from over two decades of process/product research are not specific, quantifiable behaviors. Instead, they are descriptions of classroom conditions that may be brought about in a variety of ways. (p. 116)

She continued:

Many of the behaviors associated with student learning and other desirable outcomes for mildly handicapped learners educated in the mainstream are the same behaviors than can enhance learning for all students. (p. 117)

Lezotte and Bancroft (1985), in an analysis of the effective schools practices, found the concurrent presence of quality and equity within the districts using these practices. First, the primary purpose of schooling was that of teaching and learning. Second, efforts were made to ensure that the purpose of schooling was not interrupted unnecessarily. Third, the focus of the staff and students was directed to the tasks at hand and reinforcement provided for these practices. Fourth, a common basis for assessing effectiveness in terms of student outcomes was established. Fifth, goal-based curricula were developed and used by all teachers. Last, the student learning outcomes given the highest priorities were assessed routinely. Lezotte and Bancroft (1985) emphasized the idea "what gets measured gets done" (p. 25). These assessments were most often in the form of a district-wide assessment instrument. In measuring the outcomes, the districts were also able to demonstrate both quality and equity of programs.

The themes of quality and equity were also noted in addition to those which were found in the measurement instrument. Lezotte and Bancroft (1985) concluded that

quality and equity are achieved and maintained only when improvement effort is designed to accrue benefits for all students. The entire student population should be involved in the effective schooling practices, regardless of academic achievement.

Sergiovanni (1984) examined the effective schools research from the perspective of leadership characteristics, particularly those of the building principal. He determined the vision of the leader to be an important component of effective schools. The ability to set goals, provide a direction for education, and to establish priorities were seen as important elements of the principal's vision. Also, the administrator's ability and desire to be resourceful were important. Going beyond the normal, established channels in order to accomplish a goal established the administrator as an instructional leader rather than a "chain of command" bureaucrat.

Sergiovanni (1984) viewed the school improvement process as having two components. He stated the need for a school improvement plan to be formulated in order for the improvement process to be implemented. Since the organization is composed of individual members, the school improvement process must convey the idea that the organization cares about its members.

Instructional support was viewed as a key element by Sergiovanni (1984). This support was to be a visible

entity through the competence of the principal and commitment of resources and time. Both the principal and the staff were expected to be knowledgeable about the components of quality instruction and possess a commitment to its implementation.

Weick (1976) viewed effective schools as those with freedom, but with restrictions. His ideas of tightly coupled systems as opposed to loosely coupled systems was the basis for this view. The strong culture and clear purpose of education was balanced by the freedom possessed by the staff to achieve essential core values.

In summary, the principal cannot exercise instructional leadership in a vacuum. To succeed, support is necessary from both subordinates and superordinates. The common leadership functions of mission, vision, monitoring, rewarding, and staff development must be implemented. However, these desirable characteristics have not been convincingly correlated with student achievement.

The National Coalition of Advocates for Students (1985), in discussing barriers to excellence, stated:

We reject the implication raised in current public debate that excellence in education for some children can be made only at the expense of other children. Indeed, it is our deepest belief that excellence without equity is both impractical and incompatible with the goals of a democratic society. (p. xi)

The Coalition continued with further recommendations

. . . to promote changes in special education which will improve services for children with moderate and severe handicaps while developing more regular education options for children with milder learning difficulties so that they can attend school without being handicapped. (p. 104)

Macchiarola stated in the foreword of Gartner and Lipsky (1989):

Placing the education of youngsters with handicapping conditions on the agenda of school reform is an undertaking of considerable importance and difficulty since the desire to limit our responsibility to these students is enormous. (p. xvi)

Placing the education of handicapped students on the agenda of school reform is beginning to be seen in the field of special education. The Regular Education Initiative (Stainback & Stainback, 1984) described needed adaptations of regular education instructional methods. The efforts by proponents of the Regular Education Initiative have begun to "turn from the effort to perfect a separate special education system to the struggle of changing the education system to make it both one and special for all students" (Lipsky & Gartner, 1987, p. 74).

CHAPTER III

PROCEDURES AND METHODOLOGY

The purpose of this study was to determine if a difference existed in the attitudes held by elementary school principals and teachers toward mainstreamed elementary students in schools which had implemented the Onward to Excellence (OTE) process as compared to attitudes toward mainstreamed elementary students held by elementary principals and teachers in schools which had not implemented this process.

This chapter includes a description of the variables, population, data collection procedures, the hypotheses, and the statistical procedures to be used in analysis of the data.

Variables

For this study, the independent variables were (a) position held by the administrator or teacher, (b) the individual's education level, (c) gender, (d) years of experience, (e) grade or subject taught, (f) experience with mainstreaming of special education students, and (g) the school district's participation or nonparticipation in the OTE program. For purposes of simplicity, the above

independent variables were defined as (a) position, (b) education, (c) gender, (d) years, (e) grade, (f) experience, and (g) participation. These variables were chosen after reviewing the demographic variables used in other studies (Horne, 1983; Larravee, 1985; Rajchel, 1982). The dependent variable was attitude toward the mainstreaming of special education students as measured by the Attitudes Toward Mainstreaming Scale (Berryman et al., 1980).

Population

The population for this study was all elementary teachers and principals employed in the following Montana public schools during the year 1988-89: Lincoln and Jefferson Schools in Glendive, Roundup, Culbertson, Denton, Troy, Kalispell Junior High, Eureka, Anaconda, Sunnyside and Devlin Schools in Havre, Libby Junior High, Columbus, Harlowton, Scobey, Wibaux, and Fromberg.

A listing of the districts participating in the second year of the OTE program during school year 1988-89 was obtained from the Northwest Regional Educational Laboratory (Miller, 1988). The superintendent and building principal in each district were contacted by letter to determine their willingness to participate in the study. All districts involved in the OTE program were willing to participate. These included schools in

Glendive (Lincoln and Jefferson Schools), Roundup, Culbertson, Denton, Troy, Kalispell (junior high), and Eureka.

The Montana Office of Public Instruction list of school district size, which categorizes districts as being either Class I, II, or III (Erdie, 1987), was used to determine classification of each district in the OTE group. Class I districts were Glendive Elementary and Kalispell. Class II districts were Troy, Eureka, Roundup, and Culbertson. The only Class III district was Denton.

These districts were then compared with randomly selected districts which were not using the OTE process during the 1988-89 school year. A random selection of the first and middle two districts in the Class I list was used to determine which districts would be contacted for the non-OTE groups. Chosen were Anaconda and Havre. After contacting the principal of Havre Middle School, that school was eliminated due to experience with the OTE program for Native American students. Libby Junior High from Libby, the next school on the Class I list, was used instead. Every 25th name was chosen from the Class II list resulting in the selection of Columbus, Harlowton, Scobey, and Wibaux. Fromberg, the district from the Class III list, was chosen by a random point of the researcher's finger. The superintendent and building principal in each district were then contacted by letter to determine their

willingness to participate in the study. Schools agreeing to be members of the study were elementary schools in Fromberg, Havre (Devlin and Sunnyside Schools), Wibaux, Anaconda (elementary and junior high), Columbus, Harlowton, Scobey, and Libby (junior high).

Research Design

Stanley and Campbell's (1963) description of the static group design was the basis for the research design used in this study. This design compares two groups, one of which has received an experimental treatment. The purpose of the comparison is to determine the effect of the experimental treatment. While the comparison may be made, "no formal means of certifying that the groups would have been equivalent had it not been for the X" exist (Campbell & Stanley, 1963, p. 12). Selection is a variable which this design does not control. In the case of this study, each school that chose to participate in the OTE program did so voluntarily and for individual reasons.

Additional sources of internal validity which this design does not control include mortality, interaction of selection and maturation, and externally, the interaction of selection and X (Campbell & Stanley, 1963). Mortality was not an issue in this study since each district participating in the OTE program had committed to a three-

year plan and the schools were in the second year of the commitment. No attempt was made to differentiate between teachers who were new to the district and those teachers who were in the second year of the program. Maturation was not an issue due to the fact all respondents received and returned the survey instruments within a six-week span of time.

Data Collection

Instrument

The Attitudes Toward Mainstreaming Scale (Berryman et al., 1980) was chosen to measure teacher and administrator attitudes. The instrument consisted of 18 items to which the respondent answered using a six-point, Likert-type scale ranging from strongly agree to strongly disagree. The original instrument had an adjusted split-half reliability coefficient of .92.

The instrument yielded four scores; a total score and sub-scale scores for the areas of traditional limiting disability, general mainstreaming, and learning capacity. Berryman et al. (1980) used factorial validation procedures to describe the constructs of their instrument. A principal axis factoring procedure yielded six factors with eigenvalues 1.0 or above. After rotation, three factors remained. Statements loading with a value of more than .37 were retained. Factor 1 was called Learning

Capacity. Statements constituting this factor described disabilities which did not necessarily impede academic progress. Berryman, et al. (1980) stated that no statements referring to intellectual impairments, severe sensory deficits, or behavior disorders were included in this category.

Factor 2 was identified as General Mainstreaming. Statements contained herein were inclusive of all handicapping conditions. The authors (Berryman et al., 1980) stated: "This factor appears to show philosophical agreement with mainstreaming as compared with a more pragmatic approach revealed in the first factor" (p. 202).

Factor 3, called Severe Disability by Berryman et al. (1980) and Traditional Limiting Disability by Rajchel (1982), was composed of statements concerning students with severe sensory deficits such as blindness or deafness. Berryman et al. also theorized that the reason for these statements emerging as a separate category may be due to the existence of special schools for students with these conditions.

The final instrument (Appendix C) was composed of 21 items addressing attitudes toward mainstreaming students with handicapping conditions.

Rajchel (1982) added two additional questions when conducting a study concerning teacher attitudes toward mainstreaming of special education students. Rajchel,

however, did not establish validity or reliability when questions were added. This researcher, after consulting the literature, decided to include Rajchel's questions and additional statements concerning learning disabilities.

The final version of the instrument contained three additional statements since one of the learning disabilities statements was dropped. Validity of the final instrument was established for the three additional statements using a Q-sort technique (Kerlinger, 1986). Reliability was established using a test-retest method (Gronlund, 1985). Respondents were asked to provide selected demographic information after completing the survey.

The addition of statements to the ATMS required the researcher to establish the reliability and validity of the items. Gronlund (1985) defines validity as "the appropriateness of the interpretations made from test scores and other evaluation results, with regard to a particular use" (p. 55). Gronlund (1985) defines reliability as "the consistency that makes validity possible and . . . indicates how much confidence we can place in our results" (p. 86).

Using the Q-sort technique, Department of Education graduate students and teachers employed in schools in the Gallatin Valley were asked to sort the 22 items into the three sub-scale categories. A total of 78 persons sorted

the items after reading the definition of each sub-scale. Item 19, "Teachers should have the option of accepting or rejecting a handicapped student," was placed in the category of general mainstreaming by 62.8% ($n = 49$) of the group. Item 20, "Handicapped students do not present more administrative difficulties for the principal than normal students," was categorized as belonging in the general mainstreaming category by 60.3% ($n = 47$) of the group. Item 21, "Learning disabled students performing at or near grade level should be in the regular classroom," was eliminated. The statement was divided between two categories because 48.7% ($n = 38$) of the respondents placed this item in the learning capacity category and 44.9% ($n = 35$) placed the item in the category of general mainstreaming. Item 22, "Students with learning disabilities performing more than two years below grade level should be in regular classrooms," was placed in the category of general mainstreaming by 47.4% ($n = 37$) of the respondents. This statement was placed into the category of learning capacity by 16.7% ($n = 13$) of the participants and into the category of traditional limiting disability by 35.9% ($n = 28$) of the participants.

Gronlund (1985) stated:

To estimate reliability by means of the test-retest method, the same test is administered twice to the same group of pupils with a given time interval between the two administrations. (p. 90)

Popham (1981) addresses the time interval between tests and concluded:

Selection of the between-testing intervals should be made so as to reduce the influence of the first testing on the second but also to reduce the likelihood that intervening events in the lives of the examinees will distort the second set of test results. (p. 129)

The test-retest reliability of the 21-item instrument was established Fall Quarter, 1988. Students in two undergraduate education classes were asked to respond to the survey the last week of November and again during the second week of December. Students were instructed to use the last four digits of their telephone number as a coding device for the researcher, thereby enabling students to retain their anonymity. Usable responses totaled 35 and resulted in a test-retest reliability correlation coefficient of .6923.

Respondents read the ATMS statements and then assessed their views toward the statement by identifying each item as being one with which they strongly agreed, agreed, probably agreed, probably disagreed, disagreed, or strongly disagreed. A value of one was assigned to those items marked strongly agree, two to those items marked agree, and so forth in an ascending order to six for those items marked strongly disagree. All items were scored in this manner except Item 20 which was scored in a reverse

manner. Respondents who marked a one were given the score of six, two were given a five, and so forth.

The scores on the Attitudes Toward Mainstreaming Scale were reported by the total score, and scores for learning capacity, general mainstreaming, and traditional limiting sub-tests. The range for the total score was from 21-126. The lower the score, the more positive the attitude toward mainstreaming. A score of 63 indicated probable agreement with the general concept of mainstreaming. The range for the learning capacity sub-test was 8-48. Again, the lower the score the more positive the attitude. A score of 24 indicated probable agreement. The general mainstreaming sub-test scores ranged from a minimum of 10 to a maximum of 60 with a score of 30 indicating probable agreement. The traditional limiting sub-test minimum score was 3 and the maximum was 18. A score of 9 indicated probable agreement.

Data Collection

Local building principals in districts agreeing to participate in the study were contacted in October, 1988 to ascertain their willingness to ask their teaching staff to complete the survey during a regularly scheduled staff meeting. A self-addressed postcard was enclosed with each letter. Each building principal was asked to write in the

number of certified staff in the building and mail the postcard to the researcher. In January of 1989, the ATMS surveys were sent to the building principal. A letter detailing instructions to the principal was included as well as a request for the principal to complete the survey.

The surveys were distributed during a regularly scheduled staff meeting, completed, placed in the envelope, and the sealed envelope returned to the principal. The principal, in turn, mailed all the completed surveys to the researcher. The principal was also asked to return all unused surveys.

The principals were asked to return all surveys by February 15, 1989. One principal did not return the surveys by the due date. A telephone call was made to remind him of the due date. On March 1 the researcher sent the principal another packet of the surveys with the request that the surveys be distributed as outlined. By March 10 all schools had completed and returned the surveys to the researcher. A total of 407 surveys were sent to the principals and 308 were returned, yielding a return rate of 75.68%. Information from Attitudes Toward Mainstreaming Scale surveys with missing data ($n = 33$) was not computed, resulting in a usable return rate of 65.11% ($n = 265$).

Hypotheses

The following hypotheses were tested:

1. There is no interaction between position and participation as measured by the Attitudes Toward Mainstreaming Scale.

2. There is no statistically significant difference in attitude toward mainstreaming between the OTE group and the non-OTE group as measured by the Attitudes Toward Mainstreaming Scale.

3. There is no statistically significant difference in attitude toward mainstreaming between positions as measured by the Attitudes Toward Mainstreaming Scale.

4. There is no interaction between position and participation as measured by the learning capacity sub-scale.

5. There is no statistically significant difference in attitude toward mainstreaming between the OTE group and the non-OTE group as measured by the learning capacity sub-scale.

6. There is no statistically significant difference in attitude toward mainstreaming between positions as measured by the learning capacity sub-scale.

7. There is no interaction between position and participation as measured by the general mainstreaming sub-scale.

8. There is no statistically significant difference in attitude toward mainstreaming between the OTE group and the non-OTE group as measured by the general mainstreaming sub-scale.

9. There is no statistically significant difference in attitude toward mainstreaming between positions as measured by the general mainstreaming sub-scale.

10. There is no interaction between position and participation as measured by the traditional limiting sub-scale.

11. There is no statistically significant difference in attitude toward mainstreaming between the OTE group and the non-OTE group as measured by the traditional limiting sub-scale.

12. There is no statistically significant difference in attitude toward mainstreaming between positions as measured by the traditional limiting sub-scale.

13. Amount of education, experience with mainstreaming special education students, credits in special education classes, hours of inservice in special education, grade level taught, gender, and years of teaching experience do not account for a significant

portion of the variability in attitudes toward mainstreaming as measured by the total score of the Attitudes Toward Mainstreaming Scale.

Statistical Procedures

To test the hypotheses, a number of statistical procedures were used. Two-way analysis of variance was used to test for significant interaction between the means of the independent variables in Hypotheses 1, 4, 7, and 10. Tests for main effects were done in relation to Hypotheses 2, 3, 5, 6, 8, 9, 11, and 12. The two-way analysis of variance was used to determine if there was interaction between the independent variables and the dependent variables of total score and the three sub-scale scores. The analysis of variance statistic is described by Ferguson (1981) as being a method to "test the significance of the differences between means of a number of different populations" (p. 235).

Multiple regression was used to analyze the variables which accounted for a significant portion of the variability in scores on the ATMS as described in Hypothesis 13.

Kerlinger describes multiple regression as

. . . a method for studying the effects and the magnitudes of the effects of more than one independent variable on one dependent variable using principles of correlation and regression. (p. 527)

By studying the effects of the independent variables on the dependent variables, the researcher was able to determine which independent variable most accounted for the variability in the attitude score.

An analysis of variance (ANOVA) table for multiple regression was generated for Hypothesis 13. The F calculated enabled the researcher to determine if the multiple correlation coefficient was greater than zero, statistically at the .05 level. Practical significance was considered in regard to the size of the multiple regression coefficient. If the coefficient was not statistically significant at .05, the analysis ceased and descriptive information was provided.

Ferguson (1981) describes the stepwise multiple correlation procedure as one in which "the best predictor is paired with every other predictor in turn and a multiple correlation calculated for each pair of predictors" (p. 472). The procedure is continued until the inclusion of additional variables add nothing of significance to the multiple regression coefficient.

In order to analyze responses from the ATMS, item analyses were computed. Frequencies and cumulative percentages were tabulated for each item. Response values ranged from strongly agree to strongly disagree on a six-point Likert-type scale. Mean item response scores were

then compared to the total test mean to ascertain if a significant difference existed between means.

For this study, the alpha level was determined to be .05. Ferguson (1981) notes, "The probability of Type I error is called the level of significance of a test" (p. 175). Setting the alpha level at .05, the researcher has five chances out of 100 of accepting an alternative hypothesis when, in fact, the null hypothesis is the correct choice and thereby committing a Type I error. The Type II error is committed when the alternative hypothesis is true but the researcher accepts the null hypothesis.

Schools are involved in improving the teaching process and using effective educational practices but are faced with limited funds. In this study a Type I error would be committed when a district concludes that differences exist when, in fact, they do not. This conclusion could then result in a district committing faculty time and district money to a program which does not produce a change in attitudes. Conversely, a Type II error would be committed when the differences do exist but were not accepted. No district time or money would be expended. However, potentially useful information would have been withheld from the staff.

For this study the alpha level was set at .05 level of significance; a compromise between .01 level of significance and .10 level of significance. This allowed

the researcher to draw conclusions allowing for recommendations concerning strategies and use of funds and, at the same time, ensuring that worthwhile strategies were not rejected.

Type I error was partially controlled in this study by setting the alpha level at .05. Type II error was partially controlled due to the large sample size. Ferguson (1981) states, "Type II error β is a function of sample size N . The smaller the sample the greater the value of β " (p. 175).

CHAPTER IV

ANALYSIS OF DATA

Introduction

The problem of this study was to investigate the attitudes of teachers and administrators towards mainstreaming of special education students in schools which were using the Onward To Excellence process and schools which were not using this process. Attitudes toward mainstreaming were evaluated using the Attitudes Toward Mainstreaming Scale developed by Berryman et al. (1980).

The independent variables were: (a) position held by the administrator or teacher, (b) individual's education level, (c) gender, (d) years of experience, (e) grade or subject taught, (f) experience with mainstreaming of special education students, and (g) the school district's participation or nonparticipation in the OTE program.

For this study, 13 hypotheses were generated to match the general questions in Chapter I. For each two-way analysis of variance hypothesis the data were presented in

an ANOVA summary table. For the multiple regression equation, the data were presented in an analysis of variance table.

Descriptive Statistics

The descriptive statistics for the total Attitudes Toward Mainstreaming Scale and sub-scales are found in Table 1. This table provides the minimum, maximum, mean and standard deviation. The nearer the mean is to the minimum, the stronger the agreement with the concept of mainstreaming as measured by the ATMS.

Table 1. Descriptive Statistics for Attitudes Toward Mainstreaming and Sub-scales (N = 285).

Scale	Min.	Max.	Mean	Std. Dev.	<u>N</u>
Total Test	21	126	60.8943	14.7485	265
Learning Capacity	8	48	16.9894	5.5943	284
General Mainstreaming	10	60	34.0258	9.0625	271
Traditional Limiting	3	18	9.8351	3.2497	285

The general questions in Chapter I have been answered by the following hypotheses, tested at the .05 level of significance.

The data relating to Hypotheses 1, 2, and 3 are reported in Table 2.

Table 2. ANOVA of Position and Participation - Total Scale.

Source	<u>df</u>	Sum of Squares	Mean Square	<u>F</u> Value	<u>p</u>
MAIN EFFECTS	2	1897.126	948.563	4.459	.012
Position	1	1655.476	1655.476	7.783	.006
Participation	1	233.902	233.902	1.100	.295
TWO-WAY INTERACTIONS					
Participation- Position	1	9.184	9.184	.043	.836
Residual	261	55518.732			

Hypothesis 1: There was no interaction between position and participation as measured by the Attitudes Toward Mainstreaming Scale.

Decision: Retain the null hypothesis ($p = .836$). There was no interaction between position and participation.

Hypothesis 2: There was no statistically significant difference in attitude toward mainstreaming between the OTE group and the non-OTE group as measured by the Attitudes Toward Mainstreaming Scale.

Decision: Retain the null hypothesis ($p = .295$).

There was no significant difference in attitudes toward mainstreaming and participation or nonparticipation in the OTE program.

Hypothesis 3: There was no statistically significant difference in attitude toward mainstreaming between positions as measured by the Attitudes Toward Mainstreaming Scale.

Decision: Reject the null hypothesis ($p = .006$). There was a significant difference between attitudes toward mainstreaming and position.

The data relating to Hypotheses 4, 5, and 6 are reported in Table 3.

Table 3. ANOVA of Position and Participation - Learning Capacity Sub-scale.

Source	<u>df</u>	Sum of Squares	Mean Square	<u>F</u> Value	<u>p</u>
MAIN EFFECTS	2	221.147	110.5743	3.518	.031
Position	1	168.513	168.513	5.361	.021
Participation	1	51.477	51.477	1.638	.202
TWO-WAY INTERACTIONS					
Participation- Position	1	30.865	30.865	.982	.323
Residual	261	8203.988			

Hypothesis 4: There was no interaction between position and participation as measured by the learning capacity sub-scale.

Decision: Retain the null ($p = .323$). There was no interaction between position and participation and attitude toward learning capacity.

Hypothesis 5: There was no statistically significant difference in attitude toward mainstreaming between the OTE group and the non-OTE group as measured by the learning capacity sub-scale.

Decision: Retain the null ($p = .202$). No significant difference existed in the attitudes toward learning capacity between the OTE group and the non-OTE group.

Hypothesis 6: There was no statistically significant difference in attitude toward mainstreaming between positions as measured by the learning capacity sub-scale.

Decision: Reject the null hypothesis ($p = .021$). There was a significant difference in attitude toward mainstreaming between teachers and principals.

The data relating to Hypotheses 7, 8, and 9 are reported in Table 4.

Table 4. ANOVA of Position and Participation - General Mainstreaming Sub-scale.

Source	<u>df</u>	Sum of Squares	Mean Square	<u>F</u> Value	<u>p</u>
MAIN EFFECTS	2	609.313	304.656	3.916	.021
Position	1	597.861	597.861	7.684	.006
Participation	1	10.454	10.454	.134	.714
TWO-WAY INTERACTIONS					
Participation- Position	1	8.429	8.429	.108	.742
Residual	261	20307.255			

Hypothesis 7: There was no interaction between position and participation as measured by the general mainstreaming sub-scale.

Decision: Retain the null hypothesis ($p = .742$). There was no interaction between position and participation and attitude toward general mainstreaming.

Hypothesis 8: There was no statistically significant difference in attitude toward mainstreaming between the OTE group and the non-OTE group as measured by the general mainstreaming sub-scale.

Decision: Retain the null hypothesis ($p = .714$). No significant difference between participation and attitude toward general mainstreaming was found.

Hypothesis 9: There was no statistically significant difference in attitude toward mainstreaming between

positions as measured by the general mainstreaming sub-scale.

Decision: Reject the null ($p = .006$). There was a significant difference between positions and attitude toward general mainstreaming.

The data relating to Hypotheses 10, 11, and 12 are reported in Table 5.

Table 5. ANOVA of Position and Participation - Traditional Limiting Sub-scale.

Source	df	Sum of Squares	Mean Square	F Value	p
MAIN EFFECTS	2	34.665	17.333	1.689	.187
Position	1	10.596	10.596	1.032	.311
Participation	1	23.872	23.872	2.326	.128
TWO-WAY INTERACTIONS					
Participation- Position	1	.143	.014	.108	.906
Residual	261	2679.018			

Hypothesis 10: There was no interaction between position and participation as measured by the traditional limiting sub-scale.

Decision: Retain the null hypothesis ($p = .906$). There was no interaction between position and participation and attitude toward traditional limiting statements.

Hypothesis 11: There was no statistically significant difference in attitude toward mainstreaming between the OTE group and the non-OTE group as measured by the traditional limiting sub-scale.

Decision: Retain the null hypothesis ($p = .128$). There was no significant difference between participation and attitude toward traditional limiting.

Hypothesis 12: There was no statistically significant difference in attitude toward mainstreaming between positions as measured by the traditional limiting sub-scale.

Decision: Retain the null hypothesis ($p = .311$). No significant difference between positions and attitude was noted.

The data relating to Hypothesis 13 are reported in Tables 6 and 7.

Table 6. Multiple Regression ANOVA with ATMS as the Dependent Variable.

Source	<u>df</u>	Sum of Squares	Mean Square	<u>F</u> Value	<u>p</u>
Regression	4	9000.5934	2250.1484	12.0815	
Residual	260	48424.4481	186.2479		
R-Square	.15674	Adj R-Square	.14376		.0000

Table 7. Summary of Stepwise Regression for Independent Variables of the ATMS.

Variable	Beta	T	p
Years	.2260	3.964	.0001
Special Education	-.2300	-3.981	.0001
Mainstream	.1852	3.238	.0014
Subject	.1509	2.620	.0093

Variables Not in the Equation.

Variable	Partial	T	p
Gender	-.0067	-.108	.9139
Age	.0211	.340	.7342
Education	.1044	1.689	.0925
Grade	-.0801	-1.293	.1972
Inservice	-.0525	-.847	.3980
Previous Experience	-.0004	-.007	.9944

Hypothesis 13: Amount of education, experience with mainstreaming special education students, credits in special education classes, hours of special education inservice, grade level taught, gender, and years of teaching experience do not account for a significant

portion of the variability in attitudes toward mainstreaming as measured by the total score of the Attitudes Toward Mainstreaming Scale.

Decision: Reject null hypothesis for the following independent variables: years of teaching experience ($p = .0001$), credit hours in college level special education classes ($p = .0001$), experience mainstreaming an identified special education student during school year 1988-89 ($p = .0014$), and subject taught ($p = .0093$). These variables do account for a significant portion of the variability of one's attitude toward mainstreaming. The adjusted R-square for applying this model was .14376. The amount of variance which can be accounted for by the above listed independent variables is 14.376%.

The null hypothesis is retained ($p > .05$) for the following variables: amount of education beyond the bachelor's degree ($p = .0925$), hours of special education inservice ($p = .3980$), grade level taught ($p = .1972$), gender ($p = .9139$), age ($p = .7342$), and previous experience with a mainstreamed special education student ($p = .9944$). The amount of variance accounted for by these variables could be due to chance. Therefore the null hypothesis is retained.

Item Analysis for Attitudes
Toward Mainstreaming Scale

An item analysis of each statement of the Attitudes Toward Mainstreaming Scale was computed. Value labels are abbreviated. Strongly agree is denoted by "SA", agree "A", probably agree "PA", probably disagree "PD", disagree "D", and strongly disagree "SD". The SPSSX program rounded the cumulative percentages to the tenth place. Therefore, some rounding error did occur. Response and value for each statement are listed.

Table 8. Question 1 - In General, Mainstreaming is a Desirable Educational Practice.

Value Label	Frequency	Percent	Cum Percent
SA	68	23.6	23.6
A	111	38.5	62.2
PA	61	21.2	83.3
PD	27	9.4	92.7
D	14	4.9	97.6
SD	7	2.4	100.0

The combination of the responses "strongly agree" and "agree" indicated that 62.2% of the teachers and administrators surveyed supported the concept of mainstreaming.

Combining the responses "disagree" and "strongly disagree" indicated that 7.3% of the respondents disagreed with the statement.

Table 9. Question 2 - Students Should Have the Right to be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	65	22.5	22.5
A	101	34.9	57.4
PA	64	22.1	79.6
PD	30	10.4	90.0
D	22	7.6	97.6
SD	7	2.4	100.0

The combination of the responses "strongly agree" and "agree" indicated that 57.4% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 10.0% of the respondents disagreed with the statement.

Table 10. Question 3 - It is Feasible to Teach Gifted, Normal, and Mentally Retarded Students in the Same Class.

Value Label	Frequency	Percent	Cum Percent
SA	13	4.5	4.5
A	52	18.2	22.7
PA	71	24.8	47.6
PD	37	12.9	60.5
D	50	17.5	78.0
SD	63	22.0	100.0

The combination of the responses "strongly agree" and "agree" indicated that 22.7% of the teachers and administrators surveyed supported the above statement.

Combining the responses "disagree" and "strongly disagree" indicated that 39.5% of the respondents disagreed with the statement.

Table 11. Question 4 - Educable Mentally Retarded Students Who Can Read Standard Printed Material Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	21	7.3	7.3
A	72	25.0	32.3
PA	98	34.0	66.3
PD	46	16.0	82.3
D	36	12.5	94.8
SD	15	5.2	100.0

The combination of the responses "strongly agree" and "agree" indicated that 32.3% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 17.7% of the respondents disagreed with the statement.

Table 12. Question 5 - Visually Handicapped Students Who Can Read Standard Printed Material Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	62	21.5	21.5
A	132	45.7	67.1
PA	73	25.3	92.4
PD	16	5.5	97.9
D	4	1.4	99.3
SD	2	.7	100.0

The combination of the responses "strongly agree" and "agree" indicated that 67.1% of the teachers and administrators surveyed supported the previous statement. Combining the responses "disagree" and "strongly disagree" indicated that 2.1% of the respondents disagreed with the statement.

Table 13. Question 6 - Blind Students Who Cannot Read Standard Printed Material Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	17	5.8	5.8
A	46	16.0	21.9
PA	76	26.4	48.3
PD	51	17.7	66.0
D	58	20.1	86.1
SD	40	13.9	100.0

The combination of the responses "strongly agree" and "agree" indicated that 21.9% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 34% of the respondents disagreed with the statement.

Table 14. Question 7 - Hearing Impaired Students Who Are Not Deaf Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	50	17.4	17.4
A	118	41.0	58.3
PA	88	30.6	88.9
PD	19	6.6	95.5
D	7	2.4	97.9
SD	6	2.1	100.0

The combination of the responses "strongly agree" and "agree" indicated that 58.3% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 4.5% of the respondents disagreed with the statement.

Table 15. Question 8 - Deaf Students Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	18	6.3	6.3
A	43	14.7	21.3
PA	69	23.6	45.3
PD	63	21.6	67.2
D	61	21.3	88.5
SD	33	11.5	100.0

The combination of the responses "strongly agree" and "agree" indicated that 21.3% of the teachers and administrators surveyed supported the above statement.

Combining the responses "disagree" and "strongly disagree" indicated that 32.8% of the respondents disagreed with the statement.

Table 16. Question 9 - Physically Handicapped Students Confined to Wheelchairs Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	86	29.8	29.8
A	118	40.8	70.6
PA	50	17.3	87.9
PD	23	8.0	95.8
D	7	2.4	98.3
SD	5	1.7	100.0

The combination of the responses "strongly agree" and "agree" indicated that 70.6% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 4.1% of the respondents disagreed with the statement.

Table 17. Question 10 - Physically Handicapped Students Not Confined to Wheelchairs Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	84	29.1	29.1
A	119	41.2	70.2
PA	65	22.5	92.7
PD	10	3.5	96.2
D	9	3.1	99.3
SD	2	.7	100.0

The combination of the responses "strongly agree" and "agree" indicated that 70.2% of the teachers and administrators surveyed supported the previous statement. Combining the responses "disagree" and "strongly disagree" indicated that 3.8% of the respondents disagreed with the statement.

Table 18. Question 11 - Students with Cerebral Palsy Who Cannot Control Movement of One or More Limbs Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	29	10.1	10.1
A	68	23.7	33.8
PA	96	33.4	67.2
PD	46	16.0	83.3
D	34	11.8	95.1
SD	14	4.9	100.0

The combination of the responses "strongly agree" and "agree" indicated that 33.8% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 16.7% of the respondents disagreed with the statement.

Table 19. Question 12 - Students Who Stutter Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	100	34.6	34.6
A	139	48.1	82.7
PA	43	14.9	97.6
PD	4	1.4	99.0
D	3	1.0	100.0
SD	0	0.0	100.0

The combination of the responses "strongly agree" and "agree" indicated that 82.7% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 1.0% of the respondents disagreed with the statement.

Table 20. Question 13 - Students with Speech Difficult to Understand Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	70	24.5	24.5
A	123	43.0	67.5
PA	68	23.8	91.3
PD	21	7.3	98.6
D	3	1.0	99.7
SD	1	.3	100.0

The combination of the responses "strongly agree" and "agree" indicated that 67.5% of the teachers and administrators surveyed supported the above statement.

Combining the responses "disagree" and "strongly disagree" indicated that 1.3% of the respondents disagreed with the statement.

Table 21. Question 14 - Students with Epilepsy Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	118	40.8	40.8
A	125	43.3	84.1
PA	37	12.7	96.9
PD	4	1.4	98.3
D	2	.7	99.0
SD	3	1.0	100.0

The combination of the responses "strongly agree" and "agree" indicated that 84.1% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 1.7% of the respondents disagreed with the statement.

Table 22. Question 15 - Students with Diabetes Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	157	54.3	54.3
A	117	40.5	94.8
PA	14	4.5	99.7
PD	1	.3	100.0
D	0	0	
SD	0	0	

The combination of the responses "strongly agree" and "agree" indicated that 94.8% of the teachers and administrators surveyed supported the previous statement. Combining the responses "disagree" and "strongly disagree" indicated that 0.0% of the respondents disagreed with the statement.

Table 23. Question 16 - Students with Behavior Disorders Who Cannot Readily Control Their Own Behavior Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	8	2.7	2.7
A	27	9.4	12.2
PA	71	24.3	36.8
PD	61	21.2	58.0
D	67	23.3	81.3
SD	54	18.8	100.0

The combination of the responses "strongly agree" and "agree" indicated that 14.9% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 42.1% of the respondents disagreed with the statement.

Table 24. Question 17 - Students Who Present Persistent Discipline Problems Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	11	3.8	3.8
A	44	15.2	19.0
PA	60	20.8	39.8
PD	59	20.4	60.2
D	56	19.4	79.6
SD	59	20.4	100.0

The combination of the responses "strongly agree" and "agree" indicated that 19.0% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 39.8% of the respondents disagreed with the statement.

Table 25. Question 18 - Mainstreaming Will be Sufficiently Successful to be Retained as a Required Educational Practice.

Value Label	Frequency	Percent	Cum Percent
SA	31	11.1	11.1
A	82	29.3	40.4
PA	97	34.6	75.0
PD	36	12.9	87.9
D	20	7.1	95.0
SD	14	5.0	100.0

The combination of the responses "strongly agree" and "agree" indicated that 40.4% of the teachers and administrators surveyed supported the previous statement. Combining the responses "disagree" and "strongly disagree" indicated that 12.1% of the respondents disagreed with the statement.

Table 26. Question 19 - Students With Learning Disabilities Performing Academically More Than Two Years Below Grade Level Should be in Regular Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	14	4.8	4.8
A	40	13.8	18.7
PA	52	18.0	36.7
PD	77	26.6	63.3
D	70	24.2	87.5
SD	36	12.5	100.0

The combination of the responses "strongly agree" and "agree" indicated that 18.7% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 36.7% of the respondents disagreed with the statement.

Table 27. Question 20 - Teachers Should Have the Option of Accepting or Rejecting Handicapped Students for Their Classrooms.

Value Label	Frequency	Percent	Cum Percent
SA	36	12.5	12.5
A	43	15.0	27.5
PA	39	13.6	41.1
PD	67	23.3	64.5
D	61	21.3	85.7
SD	41	14.3	100.0

The combination of the responses "strongly agree" and "agree" indicated that 27.5% of the teachers and administrators surveyed supported the above statement. Combining the responses "disagree" and "strongly disagree" indicated that 35.6% of the respondents disagreed with the statement.

Table 28. Question 21 - Handicapped Students Do Not Present More Administrative Difficulties for the Principal than Normal Students.

Value Label	Frequency	Percent	Cum Percent
SA	19	6.7	6.7
A	51	18.0	24.6
PA	56	19.7	44.4
PD	61	21.5	65.8
D	61	21.5	87.3
SD	36	12.7	100.0

The combination of the responses "strongly agree" and "agree" indicated that 24.6% of the teachers and administrators supported the previous statement. Combining the responses "disagree" and "strongly disagree" indicated that 34.2% of the respondents disagreed with the statement.

General Summary Tables

Table 29. General Summary Table - Item Analysis.

Question	SA/A	PA/PD	D/SD
1	62.2%	30.6%	7.3%
2	57.4	32.3	10.0
3	22.7	37.7	39.5
4	32.3	50.0	17.7
5	67.1	30.8	2.1
6	21.9	44.3	34.0
7	58.3	37.2	4.5
8	21.3	45.2	33.8
9	70.6	25.3	4.1
10	70.2	26.0	3.8
11	33.8	49.4	16.7
12	82.7	16.3	1.0
13	67.5	31.1	1.3
14	84.1	14.1	1.7
15	94.8	4.8	0.0
16	12.2	45.5	42.1
17	19.0	41.2	39.8
18	40.4	47.5	12.1
19	18.7	44.6	36.7
20	27.5	36.9	35.6

The general summary table described below lists the ANOVA p values of the measures.

Table 30. General Summary Table - Attitudes Toward Mainstreaming Survey - ANOVA.

Independent Variable	Dependent Variable Interaction	p Value
Participation Position Interaction	Total Test	.295 .006* .836
Participation Position Interaction	Learning Capacity	.202 .021* .982
Participation Position Interaction	General Mainstreaming	.714 .006* .742
Participation Position Interaction	Traditional Limiting	.128 .311 .906

*Significant at $p < .05$

Table 31, described on the following page, shows the general summary table for all multiple regression p values of the measures.

Table 31. General Summary Table - Multiple Regression.

Independent Variable	Dependent Variable	p Value
Years Taught	ATMS	.0001*
Special Education Credits	ATMS	.0001*
Mainstreaming SY 1988-89	ATMS	.0014*
Subject	ATMS	.0093*
Gender	ATMS	.9139
Age	ATMS	.7342
Education	ATMS	.0925
Grade	ATMS	.1972
Inservice	ATMS	.3980
Previous Experience/Mainstream	ATMS	.9944
R-square	.15674	Adj R-square .14376
		.0000

*Significant at $p < .05$

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study investigated attitudes towards mainstreaming in selected Montana elementary schools. Two groups of schools were compared. One group consisted of schools in the Montana Small Schools Consortium and involved with the Onward To Excellence process. The other group of schools had not made a commitment to this school improvement model. The population was elementary and middle school teachers and principals from 15 Montana school districts employed during school year 1988-89. All districts using the Onward to Excellence program as developed by the Northwest Educational Research Laboratory were asked to participate. This group comprised the Montana Small Schools Consortium and were in the second year of the OTE program. The control group was a group of Montana school districts which had not adopted the OTE program. A stratified, random sample was done using the criterion of district size to select the control group.

Initial contact by mail was made with all elementary and middle school administrators in districts selected for

participation to determine their willingness to commit themselves and their staff to this study. These participants were asked to complete the Berryman et al. (1980) Attitudes Toward Mainstreaming Survey at a regularly scheduled staff meeting. A total of 407 surveys were distributed and 308 were returned yielding a 75.68% return rate. Information from surveys with missing data ($n = 33$) were not utilized, resulting in a usable return rate of 65.11% ($n = 265$). Statistics for individual sub-tests were computed using all surveys which had responses to the sub-test items. Response totals for the sub-tests were: learning capacity, $n = 284$; general mainstreaming, $n = 271$; and the traditional limiting, $n = 285$.

Surveys were mailed to each building administrator in January, 1989. The administrator was asked to distribute the surveys at the next regularly scheduled staff meeting. Each teacher and administrator was instructed to complete the survey, place it in the enclosed envelope, and return the sealed envelope to the administrator. Building administrators were asked to mail the surveys to the researcher by February 15. Surveys from one school were not returned by this date. A follow-up phone call was made March 1 and another set of surveys with instructions was mailed to the administrator. This set was returned by March 15, 1989.

Independent variables in this study were (a) position

held by the administrator or teacher, (b) the individual's education level, (c) gender, (d) years of experience, (e) grade or subject taught, (f) experience with mainstreaming of special education students, and (g) the school district's participation or nonparticipation in the OTE program. The dependent variable was attitude toward the mainstreaming of special education students as measured by the Attitudes Toward Mainstreaming Scale (Berryman, et al., 1980).

Conclusions

1. Principals were more positive toward the concept of mainstreaming students than were the teachers. This finding supports the research found in the literature (Barngrover, 1971; Garvar-Pinhas & Schmelkin, 1986; Guerin & Szatlacky, 1974; Prillaman, 1983).

2. Participation or nonparticipation in the OTE program did not affect one's attitude toward the mainstreaming of special education students. Therefore, this study does not support the idea that a school improvement model poses any danger to the civil rights of students who have handicaps. This researcher found one research-based investigation which analyzed attitudes toward mainstreaming special education students in schools using the effective schools research base of practices. Larrivee (1985) studied the characteristics of teachers

determined to be effective with mainstreamed students, but this researcher could find no comparisons between schools using the OTE practices and schools not using these practices.

3. Variables which determined one's attitudes toward mainstreamed special education students were: years of experience in the field of education, number of credit hours in special education classes, experience with mainstreaming during the 1988-89 school year, and subject taught. Jordan and Proctor (1969) failed to discover a relationship between teaching experience and attitude toward mainstreaming students. Mandell and Strain (in Horne, 1985) concluded experienced teachers had more positive attitudes toward mainstreaming of students.

Twitty (1979) and Stephens and Braun (1980) concluded that a teacher's knowledge of handicapping conditions is a determiner in attitudes toward handicapped students. Stephens and Braun noted that teachers who had taken a greater number of special education classes indicated a greater willingness to accept placement of handicapped students in their classrooms. This researcher's results supported the conclusion of special education course work affecting one's attitude toward mainstreaming of students.

4. Variables not significant in determining one's attitudes toward mainstreaming were: amount of education beyond the bachelor's degree, hours of inservice in

special education, grade level taught, respondent's gender, respondent's age, and previous experience with mainstreamed students.

The issue of gender was addressed by Horne (1985) when she stated, "Investigations suggest that female teachers may have more positive attitudes toward handicapped students" (p. 132). However, this was not found to be the case in this study.

The evidence concerning one's grade level taught is rather mixed. Larrivee and Cook (1979) reported primary teachers as being most positive toward mainstreaming and junior high teachers as least positive. Hirshoren and Burton (1979) concluded elementary teachers were more positive toward mainstreaming mentally retarded and emotionally disturbed students. Hirshoren and Burton concluded: No significant difference between attitudes of elementary, junior high, or high school teachers was found regarding the mainstreaming of orthopedically handicapped students or the sensorially impaired. This study supported the literature in that teacher's age and grade level taught (Horne, 1985) were not significant in determining one's attitudes toward mainstreaming handicapped students.

The topic of the effectiveness of in-service training has received limited attention. Gans (1985) concluded that consultants depending on self-perceptions of the

problems may unintentionally misidentify the problem and not provide the educators with needed information. Additionally, time and financial restraints may cause limitations which hamper the purpose of in-service training.

5. Respondents were in favor of mainstreaming students with handicaps that were not intrusive to the classroom academic environment. According to Horne (1985) teacher attitudes are "very much related to achievement behaviors" (p. 122) of students. If the handicapped student is able to perform academically, the teachers believe the handicapped student should be mainstreamed.

6. Students with visual handicaps, stuttering or other speech difficulties, epilepsy, and diabetes were viewed as belonging in the regular classroom. This supports Horne (1985) in that these handicaps typically do not account for differences in student achievement.

7. Students with handicapping conditions that could pose a disruption to the classroom environment were not viewed favorably as candidates for mainstreaming. This supports Horne (1983) who concluded teachers did not view favorably the mainstreaming of emotionally disturbed students.

8. Students who were blind, deaf, or possessed serious behavior or academic deficiencies were not viewed as belonging in the regular classroom. When examining the

attitudes toward blind and deaf students, Berryman et al. (1980) postulated the presence of special, separate schools for these populations may have been a reason for a less positive attitude toward mainstreaming of the deaf and blind students.

Recommendations for the Profession

Recommendations for Elementary Schools

1. The change theory involved when implementing a major reform such as an Onward to Excellence program is best summarized by Purkey and Smith (1985). They stated: "Lasting change seeking to affect student achievement is more likely to result from policies that encourage bottom-up, school-specific reform efforts" (p. 354). Thus, an attempt to change educators' attitudes towards students with handicaps must address the needs of the teachers. When implementing these reforms, teachers' total credit hours in special education are a factor. Increasing educators' knowledge of special education through additional college course work has been found to have a positive effect (Salvia and Munson, 1986). By providing teacher's access to courses suitable for certification or salary credit, the school district provides an incentive and addresses the identified need.

2. A potential teacher's college course work in special education should be a consideration for potential

employment. As documented by Twitty (1979) and Stephens and Braun (1980), special education course work is a factor in determining attitudes toward mainstreaming students.

3. Since the teacher's attitude toward the mainstreamed student is a significant determiner of success (Larrivee, 1985), a positive mainstreaming experience for teacher and student must occur. Administrators who have an active role in the academic programs within the school can be a role model for the teachers and students. As chair of the Child Study Team, the principal demonstrates the school district's commitment to serving special education students. An active role in the pre-referral process provides the principal an opportunity to be of assistance to the teacher when modifying curricula and techniques for a student having academic or behavioral difficulties.

4. Cooperative teaching and consultation between the special education and regular education faculty should be implemented. Horne (1985) addressed this need, stating:

Even if effects of the grade level the teacher is working at and special education course work do have a relationship to mainstreaming attitudes, it appears that classroom teachers must be given assistance in working with handicapped students to enable them to have success experiences when working with these students. (p. 96)

Recommendations for
Higher Education

1. Wang, Reynolds, and Walberg (1988) proposed the integration of special programs and regular education in order to form a comprehensive system of education. They concluded current

. . . demographic data and other well-known indicators make it clear that an increasing number and proportion of children coming into the schools are likely to need remedial programs and other special services. (p. 250)

Therefore pre-service teachers should consider enrolling in classes pertaining to special education, regardless of future teaching level or area.

2. Pedagogy classes should include information regarding the remedial and special education students and effective learning strategies for these students. Paraprofessional experience, which includes observation and assisting in classrooms with mainstreamed students, would benefit the pre-service teacher.

Recommendations for Further Study

1. This study should be conducted using a larger sample size. The limited number of administrators participating in the study precludes generalizations to the field.

2. A rural, multi-state study with a stratified random sample of teachers and administrators should be

conducted. Since the schools participating in this study were not representative of the population in Montana, generalizations cannot be made.

3. Further study is needed to assess attitudes toward students with specific handicaps. Nationwide, 4.67% of students enrolled in school were identified as learning disabled (OPI, 1988). This category also comprises the largest percent of students within special education (OPI, 1988). Therefore, it is important to assess teachers' attitudes toward this population of students.

4. A study of the attitudinal changes of teachers involved in OTE programs with special education practices as a focus should be conducted to ascertain if the OTE program will provide site specific improvements in instructional practices with special education students.

5. The Regular Education Initiative (Stainback & Stainback, 1984) should be further investigated for possible use in rural areas. Lipsky and Gartner (1989) cite the regular education initiative as "an effort by the federal government to review, improve, and coordinate instruction for students with disabilities within general education classrooms." (p. 42). This effort may address a need imposed by the limitations of resources, funding and personnel.

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APPENDICES

APPENDIX A
LETTER TO PRINCIPALS

Carol K. Ruf
Department of Education
213 Reid Hall
Montana State University
Bozeman, Montana 59717

October 4, 1988

Dear Principal:

I am conducting an investigation of the attitudes of elementary and middle school teachers and administrators concerning mainstreaming. The cooperation and assistance of you and your faculty would be appreciated.

The control group in this study is composed of randomly selected school districts in Montana not involved in the Northwest Regional Educational Laboratory Onward to Excellence Project. The experimental group is composed of those eight schools in the second year of the Onward to Excellence project.

This study is designed to be minimally intrusive to you and your staff. Participants will be asked to complete questionnaires concerning attitudes and demographic information, seal it and return it to you. I would like this done during a staff meeting held some time between January 6 and February 15. The questionnaire will take approximately ten minutes to complete.

If you are willing to do this, please complete and return the enclosed postcard. If you have questions, I can be contacted at 994-3120 Mondays and Fridays.

Thank you for your interest and assistance. I look forward to working with you.

Sincerely,

Carol K. Ruf

Please mark the statement with which you agree.

I am willing to have my staff and myself participate in this study.

I am NOT willing to have my staff or myself participate in this study.

No. of Certified Staff _____

Signature _____

APPENDIX B
LETTER TO SUPERINTENDENTS

Carol K. Ruf
Department of Education
213 Reid Hall
Montana State University
Bozeman, Montana 59717

October 4, 1988

Dear Superintendent:

I am conducting an investigation of the attitudes of elementary and middle school educators concerning mainstreaming. The cooperation of administrators and faculty in your district would be appreciated.

Principals of schools selected to participate have been sent letters giving details of the study. I would like to solicit your cooperation and assistance with this project by allowing your staff to complete the questionnaires.

Thank you.

Sincerely,

Carol K. Ruf

APPENDIX C
SURVEY INSTRUMENT

Carol K. Ruf
Department of Education
213 Reid Hall
Montana State University
Bozeman, Montana 59717

January 3, 1989

Dear Principal:

Thank you for agreeing to participate in my research study which examines educators' attitudes and the mainstreaming of students enrolled in special education.

At your next faculty meeting, please distribute an envelope containing the survey to each person, including yourself. After completion, the survey needs to be put in the envelope, the envelope sealed and returned to you. I am asking that you mail the surveys back to me in the self-addressed, stamped envelope. If possible, I would like the surveys completed and mailed to me by February 15.

All responses will be confidential and used exclusively for research purposes. In the spring of 1989 I will provide you with a brief summary of the results which you may, in turn, share with your staff.

Thank you for your cooperation and assistance.

Sincerely,

Carol K. Ruf

Dear Teacher:

I am investigating the attitudes of elementary and middle school educators in Montana concerning mainstreaming of handicapped students. The question of mainstreaming in education is an area of diversified opinions and debate.

For the purpose of this study, mainstreaming is defined:
THE PLACEMENT OF HANDICAPPED INTO THE REGULAR CLASSROOM AS APPROPRIATE FOR THEIR EDUCATION NEEDS.

I am asking you to contribute to the current body of research concerning mainstreaming by completing this survey instrument. The approximate amount of time to complete the questionnaire is ten minutes.

After completing the questionnaire, please put it in the enclosed envelope, seal and return it to your building principal. All responses will be kept confidential and be used exclusively for research purposes.

Thank you for your cooperation and assistance.

Sincerely,

Carol K. Ruf

* * * * *

Questionnaire

Directions: The following statements relate to the mainstreaming of handicapped students. Please circle the number which represents your opinion on each statement.

- 1 = Strongly Agree - statement describes your belief almost all the time
- 2 = Agree - statement describes your belief most of the time
- 3 = Probably Agree - statement describes your belief some of the time
- 4 = Probably Disagree - statement does NOT describe your belief some of the time
- 5 = Disagree - statement does NOT describe your belief most of the time
- 6 = Strongly Disagree - statement does NOT describe your belief almost all the time

ATTITUDES TOWARD MAINSTREAMING SCALE

There are six possible choices for each question:

- Strongly Agree (1)
 Agree (2)
 Not Sure But Probably Agree (3)
 Not Sure But Probably Disagree (4)
 Disagree (5)
 Strongly Disagree (6)

	SA	A	PA	PD	D	SD
1. In general, mainstreaming is a desirable educational practice.	1	2	3	4	5	6
2. Students should have the right to be in regular classrooms.	1	2	3	4	5	6
3. It is feasible to teach gifted, normal and mentally retarded students in the same class.	1	2	3	4	5	6
4. Educable mentally retarded students who can read standard printed material should be in regular classrooms.	1	2	3	4	5	6
5. Visually handicapped students who can read standard printed material should be in regular classrooms.	1	2	3	4	5	6
6. Blind students who cannot read standard printed material should be in regular classrooms.	1	2	3	4	5	6
7. Hearing impaired students who are not deaf should be in regular classrooms.	1	2	3	4	5	6
8. Deaf students should be in regular classrooms.	1	2	3	4	5	6
9. Physically handicapped students confined to wheelchairs should be in regular classrooms.	1	2	3	4	5	6
10. Physically handicapped students <u>not</u> confined to wheelchairs should be in regular classrooms.	1	2	3	4	5	6

	SA	A	PA	PD	D	SD
11. Students with cerebral palsy who cannot control movement of one or more limbs should be in regular classrooms.	1	2	3	4	5	6
12. Students who stutter should be in regular classrooms.	1	2	3	4	5	6
13. Students with speech difficult to understand should be in regular classrooms.	1	2	3	4	5	6
14. Students with epilepsy should be in regular classrooms.	1	2	3	4	5	6
15. Students with diabetes should be in regular classrooms.	1	2	3	4	5	6
16. Students with behavior disorders who cannot readily control their own behavior should be in regular classrooms.	1	2	3	4	5	6
17. Students who present persistent discipline problems should be in regular classrooms.	1	2	3	4	5	6
18. Mainstreaming will be sufficiently successful to be retained as a required educational practice.	1	2	3	4	5	6
19. Students with learning disabilities performing academically more than two years below grade level should be in regular classrooms.	1	2	3	4	5	6
20. Teachers should have the option of accepting or rejecting handicapped students for their classrooms.	1	2	3	4	5	6
21. Handicapped students do not present more administrative difficulties for the principal than normal students.	1	2	3	4	5	6

Comments:

DEMOGRAPHIC INFORMATION

1. Gender: 1) Female ___ 2) Male ___
2. Age: 1) 21-24 years ___ 4) 45-54 years ___
 2) 25-34 years ___ 5) over 54 years ___
 3) 35-44 years ___
3. Years in the Education Profession (including this year):
 1) 1 year ___ 3) 6-10 years ___ 5) 16-20 years ___
 2) 2-5 years ___ 4) 11-15 years ___ 6) 21+ years ___
4. Educational Training:
 1) BA ___ 3) MA ___ 5) MA+30 ___
 2) BA+ ___ 4) MA+15 ___ 6) PhD or EdD ___
5. Present Position:
 1) K-3 ___ 4) 7-8 ___ 7) Special Education ___
 2) 4-5 ___ 5) Chapter I ___ 8) Special Area (Art, ___
 3) 6 ___ 6) Principal ___ Music, PE) ___
 9) Other (Specify) _____
6. Middle School or Junior High Teachers Only--Indicate Department or Subject Area of Major Assignment:
 1) Art/Music ___ 5) Mathematics ___
 2) Language Arts ___ 6) Science ___
 3) Physical Education ___ 7) Special Education ___
 4) Social Studies ___ 8) Industrial Arts/Home Economics ___
7. Quarter Hours Completed in Special Education Courses:
 1) 0 ___ 3) 7-12 ___ 5) 19+ ___
 2) 1-6 ___ 4) 13-18 ___
8. Inservice in Special Education (Estimated Clock Hours):
 1) 0 hrs. ___ 2) 1-6 hrs. ___ 3) 7+ hrs. ___
9. Teachers Only--Do you currently teach special education students who are mainstreamed into one or more of your classes?
 1) Yes ___ 2) No ___
10. Have you had previous experience in mainstreaming handicapped students? 1) yes ___ 2) no ___

If yes, please describe this experience. _____

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