

AN INVESTIGATION OF LEVELS OF EDUCATIONAL TRAINING IN SPECIAL  
EDUCATION, TEACHING CONFIDENCE, AND GEOGRAPHIC  
BACKGROUND ON PRESERVICE TEACHERS'  
ATTITUDES TOWARD STUDENTS  
WITH DISABILITIES

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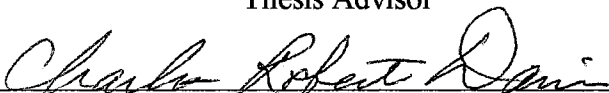
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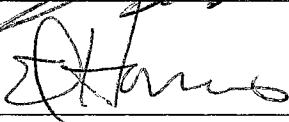
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## CHAPTER I

### INTRODUCTION

Changing roles of general education and special education teachers in education have influenced confidence of teaching and attitudes toward students with specific needs for a number of reasons resulting in exploration of variables that may improve the delivery of services to this population of students (Ashton & Webb, 1986). These changing roles have occurred not only because of national legislation in the forms of IDEA mandates for inclusion and anti-discrimination acts in the forms of 504 and ADA, but because of shortages in special education teachers in many areas forcing general education teachers to take on these responsibilities without proper training or support (Gamble, 1995). Many of these special education teacher shortages have occurred in rural settings across the nation resulting in many programs being developed to address this crisis to explore alternative approaches to alleviate the shortfall (Savelsbergh, 1995; Weiderholt, 1974; Williams, 1994). Difficulties in recruiting and retaining qualified special education personnel were found to be the next highest concern among administrators after funding, according to Gamble (1995). Results of Gamble's study indicated that emergency certification of general education teachers to fill special education vacancies was a common option to fill the void of teacher shortages, especially in rural areas where the pool of prospective teachers is significantly smaller. This resulted in teachers with little or no training teaching



students with special needs. These teachers often seek reassignment to another responsibility or leave the profession entirely. This attrition rate has been shown to be between 30%-50% for general education teachers expected to work with students having special needs, often resulting in lowered confidence in teaching and a more resistant attitude to educate students with diverse needs (Savelsbergh, 1995). The administrators' dilemma is to explore how future special education and general education teachers can be equipped with the training in special education and increased teaching confidence to work with students having diverse needs since teachers are being asked to take on more and more of the teaching of students with special needs.

#### Statement of the Problem

Among the variables influencing the success of inclusion in general education classrooms, the negative attitude brought into the general education classroom by teachers has prohibited many students with disabilities from experiencing success in general education or inclusive settings (Antonak & Larrivee, 1995). The teaching style and skills acquired through preservice training, confidence levels needed for positive interaction with individual students, and attitude of a teacher have been shown to outweigh outside variables including support, available resources and collaborative opportunities influencing student achievement (Ashton, 1984; Ashton & Webb, 1986). How to influence a teacher's attitude to be more accepting of students with disabilities has been researched from a number of perspectives including the impact of collaboration models, consultation delivery systems, and training in various field experiences (Ainsa, 1980; Bauwens & Hourcade, 1997; Wasley, 1998). It has been estimated that a shortage of special education teachers

exists, increasing by 10,000 each year, that results in a hiring dilemma for school districts on an annual basis (Gamble, 1995). This shortage has resulted in state education agencies implementing emergency certification of general education teachers into special education responsibilities with little or no training, often a more acute concern with the smaller local education agencies (LEA) (Savelsbergh, 1995). This attrition dilemma and the small population of special education certified prospective teachers available to smaller LEAs is a growing concern from the state level to the local level (Gamble, 1995). Although there are a number of variables influencing an individual teacher's attitude, this study investigated the relationship of the teacher's level of training in special education, confidence in teaching students with special needs, and predominate geographic background on their attitudes toward students with disabilities. The success of general educators working with students with special needs is dependent upon training at the preservice level for inclusive classroom settings, according to Lesar (1996). The success of inclusion is supported by studies exploring training as a significant variable in influencing teacher acceptance of students with disabilities into their classrooms (Coladarci & Breton, 1991; Gallagher, 1997).

#### Significance of the Study

What researchers know about teacher attitudes and confidence levels has been limited to mostly general education settings prior to the 1990s (Coladarci & Breton, 1991). The absence of research in special education settings, including full inclusion models, has been surprisingly limited given the unique pedagogical responsibilities of teaching students with disabilities, according to Coladarci and Breton (1991). Considering

the number of programs developed to address teacher effectiveness by Local Education Agencies (LEA) and State Education Agencies (SEA), most research has come from experience or formal theories and observation, not empirical research, as this study explored (Reiman & Thies-Sprinthall, 1998).

Researchers have explored variables influencing general education teachers' attitudes toward inclusion and students with disabilities. Some of these variables have included amounts of ownership in program development with inclusion (Bauwens & Hourcade, 1997; Calhoun, 1985), preservice training (Lundstrom, 1979), staff development of inservice teachers (Clark, 1996), confidence levels of both preservice and inservice teachers (Colvin & Schlosser, 1997), peer coaching, and clinical supervision. The construct of confidence in teaching has been explored with training, and training in special education has been studied along with the construct of teacher attitude, but studies have neglected to bring these two variables together with predominate geographic background on a preservice teacher's attitude. The relationship between preservice teachers' attitude toward students with disabilities and a preparatory course in special education was explored by Lundstrom (1979). His research explored the differences in attitudes of preservice teachers before and after completion of the class. The current study took this basic foundation and explored the influence of a multitude of classes divided into three levels of competence, assumed to accompany training. Exploring geographic background may hold promise giving insight into predispositions of acceptance of students with disabilities into general education classrooms outside of the influences of special education training and teacher confidence.

How best to prepare preservice teachers to have a confidence level in meeting the needs of all levels of students has been a matter of discussion between state accrediting agencies and higher education training institutions for years (Andrews & Clementson, 1997). The purpose of general education training programs has been to prepare future teachers to work in a general education setting, armed with the methods and tools to meet the variety of strengths and weaknesses of their individual student's needs (Meyen & Skrtic, 1995). The current study explored three variables that may influence this confidence level in addressing the needs of students with disabilities in a diminishing population of applicants for these positions. How these training programs can influence the attitude of general education preservice teachers to take a proactive role in working with students having disabilities is a matter of importance for meeting the needs of these students. Preparing preservice teachers with the confidence that they can proactively deal with various disabilities has been shown to be part of the puzzle in providing a free and appropriate public education (FAPE) and least restrictive environment (LRE) for all students.

Having general education teachers understand the importance of their role in meeting the needs of students with disabilities can result in a collaborative environment where ownership of particular students is shared by significant teacher/support personnel. Coming from a background where during the 1950s few allowances were given for the education of students who could not pass the requirements to move onto the next grade, the openness for the success of students with disabilities has improved dramatically, yet room is seen for continual growth (Bergen, 1997).

Teachers' attitudes, professional training, and confidence levels have been the subject of research for thirty-five years (Gorenflo & Gorenflo, 1991). Researchers have explored the development of variables influencing the attitudes of teachers, yet a combination of these variables with geographic background has not been explored. Combinations of these variables have been researched: Confidence on attitude (Kalaian, 1987), training on confidence (Reynolds, 1976), and training on attitudes (Hegler, 1995). The uniqueness of this study is bringing together the two variables of training and confidence with predominate geographic background to explore their combined influence on the attitudes of preservice teachers towards students with special needs .

Legislating new law focusing on students with special needs does not legislate acceptance of these students into the general educational classroom, nor the adaptation needed by general education teachers (Andrews & Clementson, 1997). This study allows more information to be utilized by accrediting agencies, licensing boards, and college educational institutions on the influence of training in special education needed by preservice teachers entering the field of education. The influence of training in special education and confidence of teaching students with special needs on the preservice teachers' attitude toward students with special needs is the targeted focus. A reevaluating of techniques, delivery models, and training interventions by training institutions and staff development committees can be analyzed with the implementation of research results in these areas.

Research must examine all variables affecting educational issues for relationships (Gage, 1978). Variables are not random collections of correlation or effect sizes.

Connections need to be made to be proactive in research development in the field of education. The current study examined three of these possible variables possibly influencing the acceptance of students with diverse needs into the general education environment.

### Conceptual Framework

Teaching is inescapably a “moral craft” and cannot be accomplished without the skills, methods, and tools needed to impact all students, including those with diverse needs (Tom, 1984). Bandura’s (1989a, 1989b) self-efficacy construct is a fundamental part of a person’s perceived ability to exercise the skills, methods, and tools for control, action, and influence over environmental contexts (Chester & Beaudin, 1996). Teacher confidence has been linked to affect students’ performance and the confidence to perform specific tasks to the self-efficacy construct theorized by Bandura (1986, 1989a, 1997) and studied by Pajares (1992). To date, few studies have explored the relationships of teacher characteristics, school atmosphere, teacher attitude, training and confidence, and fewer still have explored these variables in specific contexts such as rural or urban school settings (Chester & Beaudin, 1996; Savelsbergh, 1995; Williams, 1994).

Self-efficacy and confidence regulate human functioning in specific contexts (Bandura, 1986, 1989b). This relationship becomes more meaningful to educators when considering that the beliefs teachers hold influence their perceptions and judgments, which, in turn, affect their behavior in the classroom (Pajares, 1992).

Teachers with high confidence levels engage in more practices that are related to higher student achievement gains (Gibson & Dembo, 1984). When compared to low

confidence teachers, high confidence teachers conducted more effective techniques in dealing with students of low functioning ability, praised these students more often, and criticized low achieving students less. They found that assistance for low achieving students in failure situations increased with higher self-efficacy and confidence levels.

The attitudes, beliefs, and confidence of school personnel toward students with special needs are forces which may impede or cultivate positive change in the general education classroom (Roeser & Midgley, 1997). The human factors involved with interpersonal relationships between a teacher and students increase or deter progress in a general education classroom setting, dependent upon the progress of individual students (Brantlinger, 1996). Many variables may influence a teacher's confidence, belief, attitude, and behavior, thus affecting the productivity of the classroom for individual students, including students with special needs.

#### Purpose of the Study

A teacher's attitude has been shown to influence the amount of time spent with individual students and hold a major key to success of classroom students (Soodak, Podell, & Lehman, 1998). The amount of time a teacher spends with individual students has been shown to influence each student's productivity. A number of variables have been shown to influence attitude, yet the effects of confidence, training in special education, and geographic background have not been combined to explore their effects on a teachers' attitude.

The relationship between time spent with individual students and academic productivity of that student can be influenced by the attitude of the classroom teacher

toward the particular student (Thousand & Burchard, 1990). This relationship between time spent with specific students and student performance can be affected by the impact of nonacceptance found in some individual general education classrooms, based on negative attitudes and lack of confidence in dealing with students having special needs (Brantlinger, 1996; Gallagher, 1997; Norrel, 1997). Therefore, the purpose of this study is to investigate the influence of teacher preparatory training in special education, teacher confidence, and geographic background on preservice teacher's attitudes toward students having special needs.

#### Research Question

The research question investigated in this study is: How does the level of training in special education, teaching confidence, and geographic background affect preservice teachers' attitudes toward students with disabilities?

Answering this research question involves exploring seven hypotheses. The following null hypotheses were addressed:

Null hypothesis number one: There is no significant difference between three training levels on preservice teachers' attitudes toward students with special needs.

Null hypothesis number two: There is no significant difference between the two confidence levels of preservice teachers on attitude.

Null hypothesis number three: There is no significant difference between geographic background of rural or urban upbringing of the participants on attitude.



Null hypothesis number four: There are no significant interactional differences between training and confidence on preservice teachers' attitudes toward working with students having disabilities.

Null hypothesis number five: There are no significant interactional differences between training and geographic background on attitude.

Null hypothesis number six: There are no significant interactional differences between confidence and geographic background on attitude.

Null hypothesis number seven: There are no significant interactional differences between training, confidence, and geographic background on attitude.

#### Limitations

This study should not be generalized to represent all preservice teachers' attitudes or confidence levels because randomization was not utilized. The majority of subjects enrolled in specific classes at this university were included in the study to gain a sample large enough to utilize analysis of variance techniques. Volunteer sampling is often used in educational research over randomized sampling because entire cross-sectional educational populations cannot always be included (Reiman & Thies-Sprinthall, 1998).

Training in special education is a global term encompassing many different types of formats and approaches (Acheson & Gall, 1997). The current study used progressive overview, methods, and techniques classes in the variable of training. Other types of training should be explored. Inservice training, applicable course work to classroom settings, team teaching, collaboration, lecture formats, theory-based deliveries, and field experience are just many of the subtypes. Future studies could include the same

instruments using any of the specific types of training available to explore whether different types of delivery systems resulted in the highest confidence and attitude levels to increase teacher effectiveness.

Preservice teachers were chosen as the focus of study for this research. Other teacher development levels, including intern and inservice teachers, were not explored and should be considered for an overall analysis of professional experience. All developmental teaching levels with the variables of training and confidence should be explored to gather an overview of influencing factors on attitude.

The moral and cognitive developmental levels of teachers are areas that have been shown in the literature review to affect variables of teacher effectiveness. This was not explored in the current study, but has been shown to be an integral influence on teacher effectiveness with students having special needs. The moral and cognitive development of teachers have been shown to vary in preservice, intern, and inservice teachers and was not explored in this study. Future studies may extend this exploration.

#### Definition of Terms

##### P.L. 94-142

Education for All Handicapped Children Act (EAHCA) was enacted in 1975 to meet the educational needs of students with disabilities. This law is the building block for special education influencing IDEA.

## IDEA

The Individuals with Disabilities Act, P.L. 105-17. This federal law is regulated by state education agencies (SEAs) for each state. This law is the statute that drives special education programming. In 1990, P.L. 94-142 was changed to IDEA to include four subchapters (Parts A, B, C, & D).

## Inclusion

Placement of students with disabilities in the general education classroom with peers not having disabilities (Yell, 1998).

## Full inclusion

Placement of students with special needs in a general education setting with all accommodations and interventions implemented in the general education setting, not involving removal from this environment in any way.

## Least Restrictive Environment

IDEA's mandate that students with disabilities should be educated to the maximum extent appropriate with other students not having disabilities.

## FAPE

Free and appropriate public education. Mandate from IDEA that states FAPE as special education and related services that are: provided at public expense, under public supervision and direction, and without charge; meet standards of the SEA; include an appropriate preschool, elementary, or secondary school education in the state involved; and provided in conformity with the individualized education plan (IEP).

### Mental Retardation

Broadly based term meaning subaverage intellectual functioning accompanied by subaverage adaptive behavior.

### Specific Learning Disability.

Disorder in one or more of the basic psychological processes involved in understanding or using language that may manifest itself in an imperfect ability to listen, think, speak, write, spell, or do mathematic calculations. The term does not apply if primary impactor is visual, hearing, motor, mental retardation, emotional disturbance, or result of environmental, cultural, or economic disadvantage.

### Emotionally Disturbed

Inability to maintain satisfactory interpersonal relationships, general pervasive mood of unhappiness or depression, inappropriate reactions to normal stimuli, tendency to develop physical symptoms or fears associated with personal or school problems, and not primarily referred to as socially maladjusted.

### Programming Decisions

Decisions that drive the attainment of short and long term goals on a student's Individual Education Plan (IEP). These decisions are the actual minute to minute interactions, communications, and instruction carried out by the teachers in educating students with special needs. Programming decisions are achieved through collaboration between special education teachers and general education teachers. Title I Math and Reading instructors are involved along with any other community or school resource

deemed adequately to provide a positive education for the student involved. These decisions involving how best to educate specific students having disabilities called for utilizing all tools and methods available in a school district's resources. Attitudes, confidence levels, collaboration, training background, and consultive resources are all variables involved in implementing the goals of an IEP.

#### High Concept Teacher

A teacher that is self-directed with an above average aptitude level.

#### Low Concept Teacher

A teacher that needs a supervisory approach of directive information for acceptable implementation of teaching responsibilities.

#### SEAs

State Education Agencies gave the responsibility of regulating IDEA in the particular state. The SEA regulates local education agencies in following IDEA guidelines.

#### LEAs

Local Education Agencies make policy and enforce protocol for individual districts in a state's hierarchy of public education.

#### Multidisciplinary Team

Includes at least one teacher or specialist in the field of suspected disability. If a SLD is suspected, the student's general education teachers participate. The team includes a diagnostician capable of the assessment interpretation, an administrative designee, parent(s)/guardians of the students, the student (if appropriate), representatives of any required related services, and invited experts that may help facilitate best placement.

### Staffing

Meeting facilitated by special education where entitlement decisions are made (services needed). All members of the multidisciplinary team are present if possible services are known prior to the conference. If the staffing is IEP oriented, all members of the team should be present.

### Rural Background

Community population size up to 100,000 that does not border an urban area.

### Urban Background

Community population size up to 100,000 bordering an urban setting and metro area over 100,000 population where student attended high school.

## CHAPTER II

### REVIEW OF RELEVANT LITERATURE

Social learning theory and the specific construct of self-efficacy have helped set the stage for development in the field of education for improving teacher effectiveness in many areas (Bandura, 1977, 1981, 1989a, 1996, 1997) . According to Bandura, the belief held by teachers that they can influence their classroom setting is paramount to the success of students in their classrooms. The overlap of beliefs, moral development, cognitive functioning level, preconceived attitudes, and background experiences all play an influential part in affecting the developmental progress of classroom teachers. Social learning theory acknowledges that human thought, affect, and behavior can be influenced by direct experience (Bandura, 1977) supporting staff development issues in education dealing with acceptance of students having special needs in general education classrooms.

The value of a theory such as Social Learning Theory allows it to be “judged by the powers of the procedures it generates to effect psychological changes” (Bandura, 1977, p.4). Theory constructs are key elements in developing educational research and gives the profession a logical system to explain how variables may be bound together to influence outcomes (Reiman & Thies-Sprinthall, 1998). Thus, training in special education and the confidence level of teachers working with students having diverse needs may play a significant part in influencing beliefs and attitudes of teachers and future actions in a

positive or negative direction, dependent upon outcomes of the actions (Ramey-Gassert & Enochs, 1990). A variety of strategies, techniques, methods and tools should be incorporated to assist preservice and inservice teachers alike to better meet the needs of students with diverse needs (Wasley, 1998).

Teaching at its core includes many variables and is about “making a difference in the lives of students - all students regardless of class, gender, and ethnicity”(Gusky & Huberman, 1995, p. 253). Research has not united the three variables of training, confidence, and attitude constructs in one study to build upon future exploration of the variables affecting teacher effectiveness in the classroom toward students with special needs.

The examination of all combinations of variables must be explored to find “order, organization, rationale, and meaning” in the quest to understanding teacher development (Reiman & Thies-Sprinthall, 1998, p. 334). According to these researchers, professional learning in the field of education has two distinct domains, one of knowledge based on experience and the other of formal theories and observation that have been confirmed or are confirmable. Further exploration of variables that affect teachers’ attitudes is essential for growth in the field and can be related to social learning theory constructs of self-efficacy and subdomains of confidence, acquisition of skills, and attitudes (Pajares, 1992).

The variables of training in special education, confidence in teaching, and attitude toward students with special needs find a concrete foundation when the results of a study by Lesar (1996) are shared. Lesar states that general education teachers have been inadequately prepared to provide meaningful instruction to students with a variety of



disabilities and do not perceive themselves as having the skills for adapting instruction to meet the needs of students with disabilities, and thus have doubts about the need for educating disabilities within the general education classroom. The present investigation will extend this line of inquiry by utilizing levels of training, confidence, and attitude of preservice teachers toward students with special needs. The variables of training, confidence, and attitude thus may share part of the influence in the success of teaching students with disabilities in the general education environment, as mandated by IDEA.

The adjustment to having students with disabilities in general education classes, though required through IDEA, has shown varying progress across the United States with polarizations of positive and negative acceptance at the extremes (McLesky & Henry, 1998). Their basis for measurement was students with disabilities enrolled in general education classes 80% of the time or greater. The range of inclusion practice based on the 80% or greater index showed Vermont to have a score of 81 (overall inclusion index) and District of Columbia to have a score of -38. The results suggest that SEAs and LEAs across the nation are implementing the model of inclusion at a very diverse rate of application. Though impacting variables were not explored, the influence of variables on application of inclusion are of high interest to successfully implementing inclusive practices for students with disabilities.

While the variable of training may influence some teachers in becoming more acceptable toward working with students having disabilities, in fairness to all of the research on attitudes and confidence, Reiman and Thies-Sprinthall (1998) point out that numerous studies have shown “no amount of new skills , tools, or methods will promote

growth stages for all teachers” (p. 66). Their reviews state that high concept teachers will perform at higher levels, acceptance levels included, than low concept teachers regardless of the training exposed to both groups. This suggests that predetermined variables are out of the research’s control, yet cannot be ruled out as impactors. Despite this information, federal legislation has been mandated that acceptance of students with disabilities into the general education population will happen regardless of variables influencing possible barriers such as training, confidence, and attitude of teachers toward students with disabilities.

The mainstreaming movement created by P.L. 94-142 in 1975 and further developed through the enactment of the Individuals with Disabilities Act (1990) has stimulated research in the area of teacher training, attitude, and confidence levels of teachers working with students having disabilities for years (Gorenflo & Gorenflo, 1991; Zachry, 1995). The focus of much of this research has targeted teacher’s attitudes toward students with disabilities atypical of the general student body (Thousand & Burchard, 1990). Legislation has been enacted to assist in reinforcing an improved model for educating students with special needs in the general education classroom. The acceptance of this responsibility has been slow to evolve, partly because of the lack of preparedness general education teachers feel toward working with students having disabilities (Olson, Chalmers, & Hoover, 1997).

Another factor in this resistance toward working with students having disabilities is the system itself. Legislation increasing mainstreaming and inclusion might have begun before school personnel were adequately prepared to plan for and teach these students in

settings free from barriers to learning (Hill & Reed, 1982). Education has been divided into special education and general education by legislation, and now educators are being asked to change this imbedded design and re-evaluate imbedded beliefs even though collaboration and consultation have been shown to influence these changing barriers (Meyen & Skrtic, 1995). Appropriate placements on the continuum of inclusion are based on the needs of the individual students and should not be contingent on the training of a general education teacher (Havey, 1998). Added support should be given to the student in the classroom, if needed, but not because of lack in preparation by the teacher.

Social learning theory advocates that individuals develop knowledge, skills, strategies, confidence in new techniques, and attitudes by observing and interacting with others. Assessing attitudes is done through assessing one's own and others' consequences to actions. Individuals with high confidence levels are more likely to select higher order tasks than low confidence individuals. Confidence can influence the amount of effort an individual expends and influence persistence in task completion. When facing a tough task, higher confidence teachers expend greater effort than low confidence teachers (Gusky & Huberman, 1995).

Attitude and confidence are affected by other variables besides the hypothesized impact of training. The scope of this study has its basis on the impact of training in special education and confidence levels on attitude of preservice teachers toward students with disabilities. A number of other variables need to be mentioned. The conceptual level that is closely related to cognitive development has been shown to influence a more positive teaching approach and a higher teacher-generated classroom atmosphere the higher the

conceptual level score (Harvey, White, Prather, Alter, & Hoffmeister, 1966; Heck & Davis, 1973). Warmth, empathy, and task effectiveness have been shown to be other positive impactors in the general education classroom displayed by a high concept teacher knowing he/she can make a difference in the classroom (Harvey, 1967). High concept teachers encourage more exploration and group involvement than low concept teachers (Murphy & Brown, 1970).

There is a significant relationship between a teacher's concept level and willingness to work with students having special needs (Hunt & Joyce, 1967). High concept teachers are found to stimulate higher student achievement and increased positive attitude (Calhoun, 1985). Teachers scoring higher in moral development consider students' perspectives more positively than lower scoring teachers (Johnston, 1985). They increase individualized instruction interventions and involve students more in decision-making activities (Witherell & Erickson, 1978). A lack of acceptance to any program development occurs when the staff is not asked to participate in the development of the program (Lewin, 1948). These variables are mentioned because they have been shown to affect attitude in the general education classroom and not be contingent on training in special education.

Understanding the need to explore the many possible variables effecting teacher effectiveness toward all students rest in the following statistics reported by Gusky and Huberman (1995). Eighty-five percent of kindergartners were considered "creative" by their teachers. In second grade only 10 percent of these students were considered creative. In rating self-concepts, 80% of first graders rated themselves as having high self-concepts,

20% by sixth grade, and only 5% by high school. Teachers in elementary and secondary levels followed a similar pattern. By the second year of active service in the classroom, inservice teachers were declining in their confidence and enthusiasm. If this can be avoided, Gusky and Huberman suggest all possible impactors be explored, but suggest improvements in teacher preparation and training be part of the process.

Understanding why resistance to change in education (i.e., inclusion implementation) has such an impact on success of educational programs involves insight into various impactors explored through empirical studies. Gusky and Huberman (1995) give several reasons resistance may be encountered with educational shifts in direction. This resistance may be in whole or parts of the new concept. Teachers may select only bits and pieces that suit them or delay applying the information into direct practice altogether. If the new shift is imposed or mandated, without ownership through development, then the new constructs may be ineffective in application. If the new information is encountered in overwhelming fashion, as in quick implementation, multiple concepts at once, or seemingly contradictory in presentation, then resistance may be involved. If the information is presented in one-trial-learning formats (one-day workshops or inservices), then the information must be given application possibilities in the classroom environment, as in coaching or mentoring opportunities to be effective.

Preservice teachers have a well-developed set of attitudes about teaching before they even enter into their respective preparatory programs (Joram & Gabrielle, 1998). If these attitudes are different from the concepts taught, then these attitudes may be very difficult to alter, regardless of the training. Because of the nature of some of these

attitudes, many approaches to change them will be unsuccessful. Whether the attitude is positive or negative, these researchers suggest teachers' attitudes can be stable and resistant to change and influence the nature of their teaching delivery methods (Joram & Gabrielle, 1998).

Seven domains of knowledge are suggested by Shulman and Grossman (1998) on which a teacher bases classroom behavior. If the classroom teacher has delays in any of these areas, the result can influence the belief system of the teacher, with attitude and confidence level of the teacher an integral part of the belief system construct. These seven domains are: (a) general pedagogical knowledge, (b) knowledge of students, (c) knowledge of subject matter, (d) content knowledge, (e) knowledge of other content, (f) knowledge of overall curriculum, and (g) knowledge of educational aims.

The areas of knowledge of students and knowledge of subject matter are of particular importance to this study. Without knowledge of individual student needs (with or without disabilities) and a lack of knowledge in subject matter, the use of methods and tools to deliver appropriate individualized instruction to students is limited (Shulman & Grossman, 1998). Teachers should expand, enrich, and elaborate their knowledge of students. Content knowledge must be augmented, realizing, though, that the teacher's existing knowledge acts as a filter in incorporating new knowledge (Cohen & Ball, 1990). Thus, training may influence this knowledge base in understanding students with disabilities in the general education classroom.

A teacher's thinking is directly influenced by their knowledge and thus influences his/her actions in the classroom (Gusky & Huberman, 1995). Decisions made by the

teacher are based partly on in-depth knowledge of the subject and students, especially those students with special needs. Thus, teachers' beliefs may be affected by training and training is associated with change in the classroom. To reinforce this concept, "inclusion requires general educators to become more responsible for students with special needs, rather than being able to dump them in special education classrooms" (Klinger, Vaughn, Schumm, Cohen, & Forgan, 1998, p. 151).

Disquieting and undeniable reality is that intern teachers are not adequately prepared by their colleges and universities to manage the diverse needs of students in today's classrooms (Sobel & French, 1998). This may result in teachers entering the classroom unprepared, realizing that their confidence in teaching has been questioned by the training they have received. With the focus on the inclusion of all students in the least restrictive environment, as mandated by IDEA, students with mild, moderate, and severe disabilities are finding many classes ill-prepared to meet their needs. Professional knowledge bases can be learned through practice and practice comes from exposure to learning techniques and application to real students (Munby & Hutchison, 1998).

Change is difficult in any situation and resistance to change is inherently human. This resistance influences classroom delivery services. Beginning teachers respond differently to the demands of the workplace depending upon their attitudes and expectations entering the profession (Kilgore & Griffin, 1998). These authors further suggest that students influence the teacher's approach to teaching and methods utilized, especially when educators incorporate the reality that students with disabilities are often difficult to teach and difficult to manage because of diverse needs .

Resistance to change may be encountered because of a lack in participation in the development of new programs by the teachers themselves (Wiegerink, 1974). Failing to include primary players in program development, even if mandated by federal legislation, may overshadow teachers' training and foster negative attitudes. Ownership in program development is seen as a key ingredient to its success.

#### Attitudinal Impact of General Educators

An important predictor of the success of inclusion is the attitude projected by teachers. This is just one of the many variables that has shaped the resistance or acceptance toward incorporating students with disabilities into the general education classroom (Olson, Chalmers, & Hoover, 1997). Attitudes linked with the belief patterns of teachers is reflective of one of the key ingredients in Bandura's (1977) Social Learning Theory, cognitive beliefs. Other studies reflect the relationship between attitudes and teacher beliefs as overlapping in context (Center & Ward, 1987; Imants & Van Zoellen, 1995; Lundstrom, 1979; Siegel & Moore, 1994). Humanistic education in understanding student development, cognitive information learned through theory and application, and modeling desired behaviors may all be incorporated into teacher preparatory training programs as methods for influencing attitudes of teachers (Joram & Gabrielle, 1998).

Teachers have negative attitudes toward students with disabilities at a greater rate than positive attitudes. Another prevailing attitude among teachers is special education teachers should teach special education students, a barrier against mainstreaming and inclusion mandates (Hill & Reed, 1982). Many general education teachers harbored negative attitudes and beliefs toward students with disabilities in their classrooms. This



resistance included gifted students lying at the other extreme of the bell curve (Lundstrom, 1979; Siegal & Moore, 1994). This may be due to the fact that general education teachers just feel inadequately prepared to teach students having disabilities, resulting in a resistance to acceptance of these students in their general education classroom (Klinger et al, 1998).

Regardless of the teachers' setting or background, most teachers do not see general education classrooms as appropriate for meeting the needs of students with disabilities. It should be noted, though, general education teachers with more available tools and resources hold more positive attitudes toward working with students having disabilities than teachers that did not perceive themselves as having the available tools to deal with diverse needs (Minke, Bear, Deemer, & Griffin, 1996) .

During feedback sessions of a clinical supervision study focusing on general education teachers working with students having disabilities, differences in teacher perceptions of what occurred and the videotaped results in the observation phase often differed (Prom, 1998). Many students with disabilities were rated low in actual engagement time by the teacher when video results suggested the students were equally on task the same amount of time as their general education counterparts. Results suggested many of the general education teachers felt that many students with disabilities, because of all the extra help needed, had unrealistic interpretations of what they had learned. Because the teachers' perceptions were often not matched with actual video observations, Prom suggested that negative and positive perceptions carried into the classroom by general education teachers could adversely affect the outcomes of the inclusive class.

Through deepening sensitivity to diverse needs and equipping teachers with the tools to work with these needs, teachers' attitudes can be positively influenced (Long, 1973). In addition, the necessity to not only prepare preservice teachers with increased training to meet the needs of students with disabilities, but to continue this training on a continual basis is paramount to teacher effectiveness, attitude, and overall development (Norrel, 1997).

A teacher's attitude and belief that a student can learn the subject matter is paramount to successful student achievement and overall effective schools (Glickman, Gordon, & Ross-Gordon, 1995). Techniques and methods do not seem to have a significant impact on the effectiveness of a school, if support, collaboration, and an emphasis on academics are present. Schools are found to be ineffective, however, when teachers are left to plan independently, with little collaboration or support (Glickman et al, 1995). Involving staff in the program development of inclusion in a school influences acceptance and attitude toward the implementation of this mandate (Lewin, 1948).

The general education teachers' attitudes and beliefs toward students with disabilities are two of the more important issues influencing collaboration efforts between special educators and general educators. The attitudes of general education teachers affect the success of special education students in the classroom (Sapon-Shavin, 1988). This research suggests that teachers who are willing to work with students having a disability and have a positive attitude about it would be more likely to affect positive gains for students than would those teachers who do not want to work with students having a

disability and do not have a positive attitude about their interaction with these students. Some teachers welcomed consultants in the classroom while others looked upon them as a threat.

Increased inservice training, college courses, and intensive summer seminars improve positive attitudes about inclusion and students with disabilities (Hegler, 1995). Although teachers reported more rejecting attitudes toward students with disabilities than students without disabilities, many of these teachers would not mind working with students having disabilities if they had the skills, competence, knowledge, and support (Siegel & Moore, 1994).

The attitude of the teacher may be more important than the belief system of the administration or the goals of the incorporated curriculum. Lundstrom's (1979) research suggested the lower the teacher's attitude, the lower student self-concept and performance. For a student to reach full academic potential, a teacher's attitude can be one of the primary variables involved in the equation. Results of this study suggested a decline in resistance in working with students having a disability. This result was obtained by comparing attitude differences assessed at the beginning of an undergraduate course on exceptionalities and comparing it to the attitude assessed at the completion of the course. This suggests that teacher's attitudes were more positive at the completion of the course than at the beginning. Lundstrom's study assessed changes in attitude of pre-service teachers toward students with disabilities based on one course. The current study assesses attitudes against various levels of training, not just one class.

Those that judge themselves as having low confidence levels visualize failure scenarios over success more frequently, affecting their belief system and attitude toward the stimulus (Bandura, 1989b). This negative thinking impacts motivation, performance, and attitude of teachers alike, under the type of efficacy termed teacher self-efficacy. Thus, a possible relationship between confidence levels and attitudes of teachers could suggest that the stronger the belief in capabilities and confidence, the greater the teachers' efforts. Teachers perceiving themselves as capable of handling situations have different thinking patterns, behavior patterns, and different affective patterns than teachers with low confidence levels. Because of the relationship between teacher beliefs and attitude, attitude is impacted.

People do not just engage in negative attitude or behavior until they have justified to themselves the rightfulness of their actions (Bandura, 1990). For those teachers that do harbor negative or resistant attitudes and beliefs toward students with needs outside of the normal range of general education students, whatever the causation, in their minds, acceptance or exclusion is warranted. This effects classroom behavior and effectiveness for all students and the importance of finding relationships in variables to influence these beliefs is essential.

A positive correlation between student achievement and teacher attitude has been suggested by Lundstrom (1979). No other teacher characteristic has demonstrated such a consistent relationship to student achievement as teacher attitude (Ashton, 1984). Self-fulfilling prophecy, as defined by Reber (1995), has been linked to this relationship by the research of Lundstrom. The relationship between student self-concept and performance

has been linked through Lundstrom's research. This relationship suggests that success or failure of inclusion depends upon the teacher's attitude toward students with disabilities, as well as the acceptance of children with disabilities in the general education classroom (Andrews & Clementson, 1997; Parish, Nunn, & Hattrop, 1982).

Lundstrom (1979) ran a correlation matrix showing the relationship between training and attitudes along with the previously stated results. If these results suggested a relationship between training levels of pre-service teachers and their attitudes, then answers could influence the way in which institutions train general education pre-service teachers in working under the guidelines of IDEA. A study on the relationship between teacher attitudes and inclusion success found that teachers with increased knowledge foresaw more favorable results for students with disabilities in the classroom than those teachers without the increased knowledge base (Bergen, 1997).

Teachers themselves should be included in the development of programs for students with disabilities to promote ownership, acceptance, and decrease the resistance to accept the programming. Even though teaching is a skill which can be trained, teacher participation in the implementation of programs cannot be overshadowed. Attitudes may very well be influenced by the amount of participation in the development of programs instilled in schools (Wiegerink, 1974).

### Confidence Levels Affecting The Attitude of Teachers

#### Working With Students Having Disabilities

Self-efficacy has been stated as the belief that one can successfully execute a behavior required to produce desired outcomes (Bandura, 1977). Because confidence

levels have been tied to this construct of having the belief of ability to perform, many articles on confidence levels alone have resulted with self-efficacy mentioned as an overall foundation for confidence (Pajares, 1992). Clark (1996) used this definition to suggest that even differences concerning faculty at training institutions harbor beliefs based on level of confidence and training. Those who teach freshman level courses and those who are given the responsibility of senior level preparatory classes were found to have the ingredients of teacher confidence levels and training background. Decisions were partly based upon the levels of these two variables as part of the decision-making formula for class assignments. Thus, confidence can affect the whole continuum from preschool education to institutions of higher learning.

Confidence levels of preservice teachers (the focus of this study) can be linked to various teaching strategies implemented in their preparatory classes (Wigle & Wilcox, 1996). They found preservice teachers need to learn activity designing especially when dealing with students having special needs. Learning to select materials for multilevel teaching was seen as an important ingredient. Mentoring and collaboration with skilled inservice teachers were suggested to be positive influencing variables in raising confidence levels of preservice teachers. Adapting questioning techniques that are effective with all students was suggested to be instrumental to the confidence level of preservice teachers. Finally, they suggest that very few professional standard accreditation boards address the needs of students with disabilities and should re-evaluate their objectives in light of IDEA.

Adequacy in meeting needs, confidence in those needs, and a teacher's self-efficacy toward meeting particular needs have all been interchanged at various times

because of definition. Confidence and adequacy have been part of the definition of self-efficacy based upon the premise the three parts play in performing specific tasks (Pajares, 1992). Unless teachers feel they can influence students by the methods and tools of specific interventions, there is little incentive to act, resulting in an attitude or belief that the intervention will not work (Bandura, 1996). The stronger the confidence level, the more options the teacher sees as available to consider for implementation. He points out, though, that confidence and self-efficacy levels vary across domains and are context specific. Teachers' sense of instructional confidence partly determines what tools and methods will be utilized.

As part of his definition of teachers' self-efficacy, Bandura (1989b) has used confidence in carrying out expectations in teaching students. This relationship needs mentioning because this research explores confidence and self-efficacy in the field of education as related constructs, not easily separated along with the relationship between beliefs and attitudes. Teachers who perceive themselves as high concept teachers had higher confidence levels than teachers that perceived themselves as low concept teachers (Bandura, 1989b). The stronger the belief in capabilities and confidence, the greater effort observed.

One possible influence on the different levels of confidence may lie in the special education general education system itself (Ashton, 1984; Ashton & Webb, 1986). Special education and general education teachers have participated in a dual system that has, historically, divided and separated teachers in much the same way we have isolated and categorized many students suggesting disabilities. Protecting territories can be a response

by professionals when their roles have been blurred or their perceived usefulness threatened, as in inclusion, because inadequacy may be perceived (Wood, 1998).

Although confidence can be influenced by age and prior experience, it can also be influenced by such factors as collaboration and consultation experiences, time allowed for each of these methods, and support by administration and colleagues (Chester & Beaudin, 1996). More time allowed for communication among teachers was a finding suggested by Hill and Reed (1982) in dealing with collaboration. A lack in any of these variables can affect adequacy, self-efficacy, and confidence in delivering educational services to students having disabilities.

Confidence in the teaching profession is influenced by a well-planned and coordinated curriculum, ongoing school-wide staff development, school-wide recognition of academic success, collaboration, and support by staff and administration (Glickman, et al, 1995). These impactors are important because of the relationship with effective schools possessing these qualities while ineffective schools do not. Effective schools were observed to be meeting the needs of all students including those with disabilities.

Pre-service teachers coming into the program may have preconceived ideas that their students will succeed at grade level. When the students do not succeed at grade level, the teachers can become frustrated and question their confidence to meet the various needs of students in a general education setting. Training institutions have introduced the concept of multilevel instruction and preservice teachers at first found the concept difficult. Growth has been observed when applied to real classroom settings where below level students were not succeeding without accommodations (Brantlinger, 1996).



The number of special education referrals made by general education teachers is related to the individual teacher's confidence level in meeting the needs of students with disabilities (Soedak & Podell, 1996). Students who were considered low socioeconomic status and difficult to teach were found to be affected by teacher confidence levels in meeting the students' needs.

Self-efficacy should not be seen as an across-the-board personality trait, but context specific (Bandura, 1977, 1986). Similar studies suggest the same with teacher confidence levels (Imants & DeBrabander, 1996). These confidence levels can vary dependent upon the specific situations and needs presented to the classroom teacher. They do suggest the positive relationship between having increased methods and tools at one's disposal and increased confidence in meeting varied student needs.

Confidence levels of intern teachers are affected by the educational experience (Butler-Arlosroff, 1978). Butler-Arlosroff feels that preparatory programs are not equipping teachers to cope with current or future situations encountered in the field. To better prepare future teachers, Butler-Arlosroff suggested at the World Congress on Future Special Education, more integrative programming between field experiences and teacher training were warranted. First-year intern teachers are often confronted with a multitude of situations they were not trained for and thus, become depressed and often experience self-doubt (Ainsa, 1980).

## The Influence of Training on Teaching

### Students with Disabilities

Three assumptions have been made about teacher preparation programs targeting students with special needs (Lillie, Lubker, Rhodes, & Wyne, 1986). First, special programs designed to teach students with disabilities will produce knowledgeable, skilled staff. Second, teachers possessing special skills will produce effective programs for students with disabilities. Last, effective programs geared toward working with students having disabilities will produce positive change in student performance.

In a study by Sarason (1993, p. 147) the question is asked: "Is it asking too much of preparatory programs to prepare their students for a 'real world' which they must understand and seek to change if, as persons and professionals, they are to grow?" Teachers, including preservice teachers, hold a spectrum of beliefs and attitudes (negative to positive) toward working with students having special needs. Quality training, combined with experience, with students having disabilities has been related to improved teacher attitudes and a recognized need for individualization (Brantlinger, 1996). In fairness to the literature, though, Weiderholt (1974) points out that "a view that preservice training is the vehicle for providing all solutions to teacher preparation would be both narrow and inadequate" (p. 25).

Too much emphasis is put on how to change schools from within and not focusing on preservice teachers' experiences (Wasley, 1998). Preservice courses become survey courses with little application. This results in high theoretical framework, but little

practical skill. Preservice teachers often comment about their courses, “giving them something to actually work with in the school setting” (Reiman & Thies-Sprinthall, 1998, p. 353).

Training in special education alone is too ambiguous (Cossairt, Jacobs, & Shade, 1990). How the training is delivered is a key element. Discussing and briefly modeling techniques might be more likely to confuse and overwhelm than add to a positive knowledge base of applicability.

It is a pervasive reflection among educators that general education teachers should be required to take more courses on how to work with various disabilities and college preparatory classes include more methods courses in dealing with students having disabilities (Hill & Reed, 1982). Having teacher training institutions in the forefront for teaching applicable strategies and methods for working with a variety of students was noted as a concern of general education teachers already in the field in the study by Hill and Reed. An overwhelming number of educators suggest a lack of training as the number one negative impactor toward inclusion. Training as an intervention does not always generate increases in positive attitudes. Johnson (1971) found that a significant change in attitude did not occur between pre- and post-surveys after the intervention of increased training.

Training cannot stand alone as the one variable affecting teacher effectiveness (Reiman & Thies-Sprinthall, 1998). Moral, cognitive, and educational levels of preservice, intern, and inservice teachers will impact all variables influencing teacher effectiveness

with students. They submit that it will take the whole educational spectrum of schools, universities, and communities to influence teacher effectiveness to any great degree.

Realizing the impact of the many different combinations of variables affecting teacher effectiveness in the classroom, exploring the different influencing variables, including training, is needed to further develop educational theory and extend applicability techniques (Reiman & Thies-Sprinthall, 1998). Patrick, Hicks, and Ryan (1997) suggest that the teacher's classroom instructional and management practices that emphasize encouragement and reinforcement for all students, including those with disabilities, elevated student confidence. Therefore, maintaining positive attitudes as well as changing negative attitudes is part of the training outcomes of institutions.

Teachers are more likely to incorporate modeled behavior if the results have value instead of being unrewarding (Bandura, 1977). Bandura states some complex behaviors can be produced only through the aid of modeling, thus without training, some classroom methods and tools might not be incorporated into the teachers' schema. The incorporation of new training depends on the cognitive and concept level of the teacher (Glickman, Gordon, & Ross-Gordon, 1995; Jenson, Walker, Clark, & Kehle, 1996; Pugach, 1995). People incorporate training information only within their capabilities. Thus, variance may come from the differences of cognitive developmental level.

Practitioners must be involved in changing any educational paradigm. Trainers of our preservice teachers need to take an active role in the changing educational paradigm from self-contained general education classes to the full spectrum inclusion model where collaboration and consultation are the foundations for reaching IEP goals in the general

education classroom. Ongoing staff development training may be a key ingredient to effective schools meeting the needs of a diversity of students for beginning teachers and tenured staff as well (Glickman, Gordon, & Ross-Gordon, 1995). Training does not stop with graduation from a teaching institution, but is needed for effective teachers and schools. Almost all of the participants in the Glickman, Gordon, and Ross-Gordon research project shared that their greatest fear was going into the class and saying “I don’t know, I don’t know.” Trainers need to give the pre-service teacher as much exposure to students with disabilities as we can to allow for a greater array of interventions to be utilized by each individual teacher.

To describe a teacher’s day as full is, in many respects, an understatement. Even properly managed time often results in on the run consultation or collaboration. A frequently discussed variable among teachers is the time factor involved with proper implementation of interventions (Brown, Pryzwansky, & Schulte, 1995). Teacher preparatory programs are introducing the concept of collaboration and consultation in their training programs. Preservice teachers armed with the knowledge of how to learn from other educators and brain storm ideas can be a useful tool upon entering the field. Breaking down barriers by having teachers possess the tools to seek out help is a step in the right direction.

The more fluid a system can be in terms of providing training and resources, the better it will be in meeting the needs of teachers who are changing roles. These changing roles consist of no longer just teaching the average student, but also meeting the needs of those students having special needs. In a tertiary relationship, students are found to behave

according to expectations they perceive about themselves from the teacher, the real teacher's expectations of the student, and the teacher's treatment of the student (Lundstrom, 1979). All of which affect the self-fulfilling prophecy of the student.

Success is measured by the output of the student, but the variables involved to reach this output are varied and not regimented. A continuum of services needs to be made available for the student with a disability. A single approach to all is not acceptable for meeting individual needs (Council for Exceptional Children, 1993).

Teachers moving into the consultive role and wish to help train other teachers need help with the logistics of collaboration and consultation, as in how to schedule a classroom of twenty-three students into an individualized instruction model without the general education teacher suffering burnout. The focus of this study is upon pre-service teachers, yet these subjects can later become our master teachers, administrators, and instructors in higher education.

Beliefs of school personnel can be a barrier that impedes and obstructs change (Brantlinger, 1996). This can be paralleled with the naive pragmatic view of resistance to change even when the critical pragmatic view shows there could be a better way to implement goals. Brantlinger's research suggested training institutions will have to provide anecdotes to change negative attitudes harbored by entering pre-service teachers. The optimal plan of execution for inclusion to be effective, therefore, requires a change in the beliefs of staff, not just in board or state mandated policy. This study focused on identifying specific anti-inclusion beliefs and what could be done to influence them into positive change. Teachers need knowledge and this is associated with the idea that much

of this knowledge base will come from the content of teacher education programs. The tools in which the new teacher incorporates into his or her useful interventions will be exposed to them through much of the training they receive in preparatory classes.

The beliefs of pre-service teachers can interfere with the best training exercises taught in the classroom if they are not addressed. These beliefs cut across low socio-economic status, ethnic, and religious barriers. Brantlinger (1996) focused on these negative beliefs through pre-service teacher training by exposing students to the following regimen:

1. Placing pre-service teachers into residential settings, alternative schools, and regular schools to train in various environments.

2. Preservice teachers being exposed to five different settings for observation before student teaching assignments are given.

3. Presenting different instructional levels was very frustrating for pre-service teachers. To remedy this barrier, practicums were offered to show how to implement various levels in one setting. Results suggested that pre-service teachers learned how to accommodate and saw better growth with the student when accommodating.

4. Students were taught to analyze the needs of individual students, not mass learning.

This training suggested that needs of the students having disabilities drove the goals of the classroom and the IEP, not a general learning theory geared to reach all students. The more training, the more cognizant the pre-service teacher became to

individual differences and recognition of needed accommodations. Field experience allowed for a better understanding of collaboration and consultation.

The following beliefs were found to be essential for positive inclusion to take place:

1. The classroom is a place where enriched, stimulating, practical, and relevant experiences take place.
2. Individuals with different achievement levels can learn together.
3. The purpose of education is to encourage lifelong learning and active, constructive community participation.
4. Integration, collaboration, and cooperation are preferred forms of interpersonal interaction.

It should be noted that these beliefs were exposed to pre-service teachers through their training in preparatory programs and field experiences.

Beliefs that should not be taught or extinguished if the pre-service teacher has acquired these attitudes are: (a) all students of a particular age should function at about the same achievement level, (b) pupils who are below grade level will catch up to their peers, and (c) tracking and separation of atypical students is best.

How were these beliefs discussed and focused upon? During training of these pre-service teachers, reaction papers were written of the various field experiences the pre-service teachers were exposed, written reviews of articles on inclusion, case analysis of individual students having disabilities, and various exposure to different disabilities in field experiences.



It has been suggested that the most frequently heard anti-inclusion beliefs were stated to preservice teachers by their site supervisors and school personnel during the field experience (Brantlinger, 1996). The supervising teacher was the most inspirational of positive inclusion beliefs for the pre-service teacher. Further research might include analyzing the training received by supervising teachers in the field and doing a better job of placement with positive inclusion supporters. This study suggests that teacher educators who are interested in preparing future teachers for inclusive classrooms must consider beliefs of their students in preparing them to teach and must seek antidotes for pervasive anti-inclusion beliefs. This can be done by providing multiple field experiences with students having special needs and involving pre-service teachers with successful inclusion programs. In addition, gaining experience in the collaborative and consultive delivery models is an asset.

Teachers of the Year in all fifty states have been surveyed targeting what made these teachers successful (Shanoski & Hranitz, 1991). Pursuing training beyond the bachelor's degree was seen as a must. Fifth-year teacher training was suggested to be a viable part of the training proposed by these teachers. A weakness of some reported training experiences was a lack in applicable strategies. The respondents felt this affected attitude toward students with disabilities and quality productive interventions applied to these students.

Some general education teachers are not supportive of including students with disabilities into their classrooms regardless of training level, yet providing preservice teachers with training to problem solve has been shown to increase confidence, skill

levels, and motivation among many teachers (Johnston, 1985; Lundstrom, 1979; Schunk, 1996). This suggests that pre-service teachers taught to problem-solve how to individualize lessons for students having disabilities would increase performance capabilities. Having students assess their capabilities and progress allows the self-evaluation in training that both Schunk (1996) and Brantlinger (1996) described, influenced a growth in confidence by many preservice and inservice teachers.

Productive teachers were seen as more confident, strategic, and organized, than their counterparts. Although training is not the attributable variable influencing productivity alone, learning through training, be it collaboration, consultation, and/or higher educational classwork suggested increased confidence with most teachers in dealing with students having disabilities (Colvin & Schlosser, 1997).

Teachers' real and perceived lack of skills in dealing with students having a disability is an influence effecting the success of the inclusive model. In addition, teachers' tolerance of working with different levels of functioning within one classroom can be a barrier. The development of collaborative relationships between special educators and general educators has been shown to increase the skill levels of general education teachers and influence their attitude toward the atypical students in their classroom (Olson, Chalmers, & Hoover, 1997). Olson et al. noted that secondary teachers reported a desire to make more accommodations for students with disabilities, but did not feel they possessed the skills to do so, thus a dilemma of carrying out the intent of IDEA, but lacking the tools to actually implement it.

Cooperative teaching, where resources and diverse training both in and out of special education are brought together in a collaborative manner, has been shown to be highly effective in delivering an educational product to students having disabilities. Utilizing the training of a special education teacher, Title I teacher, and speech and language therapist with the general education teacher has been shown to be beneficial to increase the tools available in the general education classroom.

Another contributor toward successful collaboration is time itself. This cannot be dismissed as a possible viable part of the findings in research (Bauwens & Hourcade, 1997). These authors suggest administrators need to set aside time for general education and special education teachers to brainstorm and creatively collaborate for the betterment of the individual student. Though this variable was not the primary predictor of success in research by Bauwens and Hourcade (1997), it cannot be dismissed as not having influence. Their research suggested increased tools, interventions, and delivery approaches learned through training and cooperative learning from special education teachers that already have the training, was the most important finding. This is reinforced by Jakupcak, Rushton, Jakupcak, and Lundt (1996) whom suggest that training received in a variety of instructional strategies is essential for meeting the needs of students with disabilities. These strategies can include mnemonics, paired concepts, and conceptual visualization.

Utilizing the knowledge and expertise that exists between general educators and special educators without it becoming a “turf” issue is paramount to successful collaboration (Wood, 1998). Special educators and general educators have historically

operated in separate regimes. Teachers now must be willing to share the responsibility of dealing with students having disabilities and not looking at it as another department's responsibility. Collaboration and training can help bridge this gap.

The attitude in which general educators approach the programming process in implementing Individual Education Plans (IEPs) for students with special needs has been researched (Chamberlain, 1997). An important ingredient in this process of including students with disabilities in general education classes has been shown to be the willingness of general educators to accept them into the classroom (Soodak, Podell, & Lehman, 1998). A shortcoming of the programming process was noted when beliefs of the teacher and the delivery system of the teacher were in conflict. Teachers' thinking about classroom practice is a complex domain analyzing many variables into its implementation. Attitudes, training, and confidence levels cannot be excluded. Programming decisions are not part of the IEP process, but are the means of how the goals are reached. These programming decisions are the backbone in accomplishing the goals of the IEP, and if not properly executed, the real education intended is not received. To understand fully the complexity of interventions needed to teach in today's classrooms, teachers' beliefs need to be explored (Soodak, Podell, and Lehman, 1998). The needs of the child drive the placement and IEP process and how much inclusion should be utilized. More training in the area of mixed-ability strategies for pre-service teachers can improve the tools needed to successfully implement programming decisions (Chamberlain, 1997).

The mainstreaming movement created by P.L 94-142 in 1975 has orchestrated the current implementation of inclusion into the general education classroom. Exposure to the general curriculum is paramount in the new revisions of the Individuals with Disabilities Education Act (IDEA). Positive attitudes toward students with disabilities are vital to successful integration into the general classroom (Thousand & Burchard, 1990). Their research reinforced the variable of attitude and its relationship with predicted teacher performance in inclusive settings.

Training, Confidence, and Attitudes and Their Relationship  
with Inclusion, Collaboration, and Consultation.

Beliefs and attitudes of beginning teachers are influenced by opportunities for them to collaborate and consult with colleagues, administrators attention to instruction, and the amount of resources available in the school (Norrel, 1997). Teacher training cannot be separated from the tools of collaboration and consultation for effective teacher improvement (Olebe, Jackson, & Danielson, 1999). It is documented that teacher's confidence levels and attitudes toward teaching change during the first year of teaching (Bullough, 1989). Training gained by collaboration and consultation with teachers already having experience and prior knowledge was seen as a positive intervention by new teachers in the field (Chester & Beaudin, 1996). In fairness to other variables that impact the general educator's classroom environment, simply giving verbal permission to the classroom teacher to make individual adjustments to students with various needs (gifted or having limitations) is enough to bring about some change. Policies of having to teach all students the same are not written into teacher handbooks, nor advocated by

building administrators, yet they are often assumed by teachers (Idol, 1997). This study is not advocating the influence of training and confidence levels as the only primary variables effecting attitudes of pre-service teachers toward students having disabilities, nor collaboration and consultation as the sole answers to training in the public schools.

Educational theories can be fallible and subject to slip-ups that can result from human limitations and contextual complexities (Willower & Licata, 1997). It is just that collaboration and consultation are working better than many other methods tried to date. This can be viewed as another parallel between naive pragmatism and critical pragmatism. The beneficiaries of any successful school program will be the students, staff, or both. Yet, the nemesis is supported. Poor programs do not facilitate student growth as well as positive programs.

Not all learning is unidirectional, meaning behavior is a function of the person and environmental interaction (Lewin, 1948). Teachers contributing to the classroom environment does not mean the teacher is the sole author of responsibility for action. Bandura (1983) postulates that numerous other variables contribute to a teacher's actions in the classroom and are reciprocal. Behavior, the teacher, and environment (classroom, building atmosphere, and previous experience) all work together to influence attitude and beliefs carried into the classroom.

Tracking pre-service teachers' beliefs during teacher education programs has been explored and results suggested if the belief was instilled that all students will get the support or assistance they require, then inclusion and positive gains by the student were of a higher quality (Goodman, 1998). Goals of students were better recognized with

increased training by teachers and the greater the training in dealing with students having disabilities, the better the teacher was at collaboration and consultation (Gallagher, 1997). Not being exposed to collaboration or consultation led to barriers from teachers because of fear or lack of knowledge. The premise was legislation can require various students to be taught in a general education classroom, but institutions must educate teachers for more positive acceptance of the child with disabilities into general education contexts.

Even if training in special education is lacking, a collegial, supportive, consultive, and collaborative teaching environment influenced teacher motivation to increase effective skills (Wasley, 1998). Effective teachers have the required training to meet the needs of a diverse population of students, a willingness to change, a common mission, collaboration between staff, and knowledge of the learning styles of individual students (Richardson, 1998).

Learning by students with diverse needs have shown to increase 95% of material presented when a learner teaches specific content to another, according to Jakupcak, Rushton, Jakupcak, and Lundt (1996). They suggest this ability to present material through varied instructional strategies comes from training and collaboration between general education teachers and special education teachers in the inclusion-type setting.

#### Special Education Training in Rural Education

A key element of this study is context specific to the issue of special education preparatory training in rural settings. In rural areas where special educators can be scarce, Ludlow, Wienke, Henderson, and Klien (1998) point out that general education teachers

are often thrust into the role of special education teacher without training specific to the needs of students with diverse needs. This type of program delivery puts highly stressed and untrained teachers into an impossible situation. Results concluded little longevity in the position, poor attitude, and low self-confidence in dealing with students having special needs if training was not seen as applicable to students' needs.

The second highest concern among administrators after funding is recruiting and retaining special education personnel (Gamble, 1995). Program development is affected by successful and data driven programs already showing possible desired outcomes and are often adopted by other districts because of their proven record (Acheson & Gall, 1997). Much of program development is based on experience or formal theories and has not been empirically explored (Reiman & Thies-Sprinthall, 1998).

This study explored the effects of training in special education, confidence levels of teachers, and geographic background on preservice teachers' attitudes toward students with special needs and the results may be very pertinent to program development of special education departments in rural settings. Rural administrators and curriculum directors are continually exploring staff development and teacher certification training interventions to increase knowledge in rural settings, thus knowing outcomes of training on teacher attitude allows for preliminary screening of possible programming (Patrick, Hicks, & Ryan, 1997; Sabastian, 1997; Savelsbergh, 1995).

Training in special education is not the only variable that can affect the special education teacher shortage in rural school districts. It has been suggested that training did not influence working with students having disabilities as much as familiarity with the



school and ownership with inclusion's program development (Dulle, 1987). A feeling of not fully being accepted in the rural community of employment had more of an impact on attitude of teachers than any other variable, including training (Sabastian, 1997). Thus, training may be an instrumental part of addressing the issue of special education teacher shortages in rural areas, but will not be the sole answer. It is, though, a significant building block in addressing the issue.

### Summary

The literature has explored the variable of training affecting a teacher's attitude toward working with students having diverse needs, but has not explored levels of training in special education and its possible impact on attitude. The research has suggested that the more training the more open the attitude toward acceptance of students with special needs in the classroom, but this has been shown to often be affected by other variables such as the high concept/low concept level of the teacher. The difference between high and low concept teachers was shown to have little impact on training, thus suggesting that training, and confidence cannot stand alone as sole variables influencing a teacher's attitude. The research has not included the effects of training, confidence levels with geographic background in one study. Training has been shown to impact the attitude of preservice teachers toward students with special needs, yet in combination of other possible variables, research is minimal.

Confidence has been shown to impact the attitude of preservice teachers toward working with students having diverse needs. The confidence of a teacher with their belief of influencing a student's productivity has been tied to Bandura's theory of self-efficacy.

Combining levels of training and geographic background has not been the subject of research. Training and teaching confidence levels have been the focus of various studies, yet their influence on preservice teachers and the addition of geographic background has not been an area of focus. The research has shown that many variables may influence a teacher's approach to dealing with students having diverse needs in a general education setting, yet isolating the three variables of different training levels, confidence levels, and geographic background levels have not been the focus of any study.

Geographic background is a variable pertinent to specific geographic areas of school districts and may play a significant role in the hiring practices of teachers in specific locales. Combining this variable with training levels of preservice teachers and confidence levels of these students was the focus of this study.

Two themes in the research were apparent. Striving to find significant variables that can assist in the education of students having special needs was one theme to the research for this study. The latter would be how to identify prospective teachers who will come into contact with students having disabilities. IDEA has allowed a continuum of services to be entertained by multidisciplinary teams for meeting the needs of qualified students and finding teachers to best fulfill these needs. The shortage of qualified personnel has and will continue to be a dilemma faced by public schools in all geographic locales. Searching for ways to identify and prepare prospective teachers is an ongoing research area.

## CHAPTER III

### METHOD

The purpose of the present study was to investigate the influence of teacher preparatory training in special education, teacher confidence, and geographic background on preservice teacher's attitudes toward students having special needs. An instrument packet consisting of a demographic questionnaire, confidence scale and an attitude scale were administered to pre-service teachers at a Midwestern university. The university offers a general education program focusing on an early childhood major, elementary major, and a variety of secondary education major options. A tier of training classes is offered to the general education teacher with special education method and techniques options, but only one class is required for certification in general education with a theory and application core focusing on special education. The university offers a minor in special education, but full certification in special education is accomplished through the university's graduate program.

Included in this chapter is the following: (a) a description of the participants; (b) discussion of the instruments used to gather data; (c) discussion of the procedure utilized in the study; and (d) the techniques for data analysis.

## Participants

Students eligible for this study were freshman, sophomores, juniors, and seniors enrolled in the College of Education in a Midwestern university that does not offer a major in special education for undergraduate students. All of the eligible participants were enrolled in one or more of the classes offering a focus on special education background or intervention strategies. These classes are all elective class offerings, including SSLS 510, Overview of Education for Exceptional Students. This class is required of all education majors applying for certification by the surrounding State Education Agencies (SEAs) in the four state area. The students noted on their demographic sheet all of the classes with special education emphasis in which they were currently enrolled or had completed. All of the students enrolled in the various special education classes were given the opportunity to participate in the study (Table 1). The current study did not randomize participants, utilizing all possible enrollees in education classes as possible subjects. This restricts generalization of results to any population outside of the participants for this study.

Table 1

Classes with a Special Education Emphasis Offered to Preservice Teachers

Class	Semester	Day/time
CURIN 306 Pre-professional Lab*	Fall/Spring	Tues. or Wed./PM
CURIN 307 Pre-professional Lab 2*	Fall/Spring	Tues. or Wed./PM
SSLS 510 Overview of Education for Exceptional Students*	Fall	Monday/PM
SSLS 739 Individuals with Mental Retardation	Fall	Monday/PM
SSLS 745 Classroom Management Techniques	Fall/Spring	Wednesday/PM
SSLS 750 Educational Evaluation	Fall	Tuesday/PM
SSLS 761 Practicum in Special Education	By appointment	
SSLS 751 Working with Families of Exceptional Children	Fall/Spring	Monday/PM

\*required course

Student demographics showed a cross representation of early childhood, elementary, secondary, special education majors with varying areas of concentration. Participants were students of various ages, various plans of study, and varying future goals. Gender differences were noted along with information on personal disabilities and marital status. Additional demographic information included whether the participant came from a rural or urban background and in which of four areas, rural to urban, the future professional anticipates employment (Gassaway, Jung, & Lee, 1998).

Three levels of teacher training were assessed because of the university's prerequisite order of progression in attaining the knowledge needed in working with a multitude of students with diverse needs. The basic exceptionalities class and the two required pre-professional labs were grouped as level one because of their general theory and broad content knowledge overviews. Group two consisted of all coursework in group one plus three elective classes with a focus on applicability and increased specific theory in more specific domains: mental retardation, classroom management, and educational evaluation. Level three included both group one and group two, plus more complex content of advanced classes and their applicability to multiple disabilities, cross-categorical status, and a developmentally increased knowledge base that is significantly more in-depth than the preceding levels. These last three classes were designed for preservice teachers and graduate students pursuing certification in special education. These classes included intervention with families of students with disabilities, language disability from a cross categorical approach, and active techniques for instructing students with mental

retardation (to achieve the minor in special education). Level three classes could only be taken by upper-level undergraduates who had completed the two preceding levels as shown in Table 2.

Table 2

Training Levels for the Study

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Level one:

CURIN 306- Pre-professional Lab 1

CURIN 307- Pre-professional Lab 2

SSLS 510- Overview of Education for Exceptional Students

Level two:

SSLS 739- Individuals with Mental Retardation

SSLS 745- Classroom Management Techniques

SSLS 750- Educational Evaluation

Level three:

SSLS 761- Practicum in Special Education

SSLS 751- Working with Families of Exceptional Children

SSLS 769- Children with Language Disabilities

SSLS 740- Techniques of Instruction for the Mentally Retarded

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The completion of these classes offered to preservice teachers at the university did not result in a certification for teaching special education, but a minor in special education with certification in mild mental retardation only. Graduate courses were required for the preservice teacher to meet full cross-categorical eligibility certification. The courses were listed according to prerequisite status, meaning a preservice teacher could not take upper level courses before completing those courses coming before it, because of the increased complexity of required knowledge. This progression in training thus created the three levels of possibilities under the variable of training in special education techniques. Combining classes would have diluted the possibility of knowing levels of training and their influence on confidence and attitude.

#### Instruments

Three instruments were administered for this study to all participants by four professors in the College of Education. A consent form (see Appendix A) was attached to the front of the instrument packet. A Demographic Questionnaire (see Appendix B) was used. An instrument developed by Antonak and Larrivee (1995): The Opinions Relative to The Integration of Students With Disabilities-ORI (see Appendix C) was utilized to assess the preservice teacher's attitudes toward students with special needs. The Special Needs Confidence Scale (see Appendix D), developed by LePage, Lewis, and Casella (1995) was used to assess the preservice teacher's confidence level in working with students having special needs.

Appropriate approval for this study of human subjects was obtained from the Institutional Review Boards of Oklahoma State University and Pittsburg State University.



Pittsburg State University's Institutional Review Board, chaired by Oliver D. Hensley, Dean for Graduate Studies and Research, received the Request for Review (see Appendix E). Oklahoma State University's Institutional Review Board, directed by Carol Olson, Director of University Research Compliance, received the IRB Application (see Appendix F). Both universities approved the status of the research and processed it with exempt status. Approximately 300 preservice students were given a consent form and rights were attached to the instrument packet. The participants were identified by name and the researcher did not meet with the participants. The survey was administered to all education enrollees in undergraduate education classes for the fall semester by four professors in the Department of Special Education assisting with the study.

#### Demographic Questionnaire

Characteristics of the participants were assessed with a questionnaire developed by the researcher. Nine questions were asked. These items included age (five levels: 18-19, 20-21, 22-23, 24-25, and 26 or older), gender, ethnicity (six levels: Caucasian, Hispanic, African-American, Native American, Asian/Pacific, and other), college major, Classes in special education student is taking or has completed (three levels), class ranking (six levels: Freshman to Special Student), Which type of high school setting did you attend? (Four levels: rural, town, suburb, and urban), and Which type of setting would you currently seek for educational employment? (four levels: rural, town, suburb, and urban).

The questions: (a) Which type of high school setting did you attend? and (b) Which type of setting would you currently seek for educational employment? play a possible role in future studies. Each of these questions contained four levels with the same criteria.

These questions were paired to consider the possible relationship between the population density of the high school attendance area and future desire to work in similar surroundings. The four levels consisted of: Rural (community less than 12,000 population), Town (12,000-100,000 not bordering an urban area), Suburb (12,000-100,000 bordering an urban area), and Urban (large metro, over 100,000 population).

#### Opinions Relative to the Integration of Students Having Disabilities

The Opinions Relative to The Integration of Students With Disabilities-ORI (was utilized as the attitude scale) and consisted of twenty-five questions relating to various aspects of teaching students with disabilities. Antonak and Larrivee (1995) used their original scale with preservice teachers hypothesizing that the sample with whom the ORI would be used, would include undergraduate education majors pursuing an initial or recertification in general or special education degree. The current study utilized their instrument for that purpose. The most widely used method to assess attitudes is the probabilistic summated-rating method developed by Likert (1932). To alleviate a mid-point-response-style threat, a middle value was alleviated. A six-point Likert-like scale was used to rate the items on the survey, thus eliminating a non-informative middle value. The Likert-like scale options were as follows: -3: "I disagree very much," -2: "I disagree pretty much," -1: "I disagree a little," +1: "I agree a little," +2: "I agree pretty much," and +3: "I agree very much." Participants were directed to circle the number to the left of each item that best described his/her agreement or disagreement with the statement. It was emphasized that there were no correct answers: the best answers were those that honestly

reflect their feelings. There were no time limits for completion. The higher the score indicated more positive or favorable attitude toward working with students having disabilities.

To enter the ORI scale into SPSS (Norusis, 1993), the scale was changed numerically to 1= -3, 2= -2, 3= -1, 4= +1, 5= +2, and 6= +3. According to George and Mallery (1995), factor analysis is used to help identify a small number of constructs from interrelated variables of an instrument. A factor analysis was completed by Antonak and Larrivee (1995) for this scale. The extraction method was used to rotate the items. Their factor analysis identified four constructs consisting of:

- AF1- Benefits of integration-accounting for 27% of the variance
- AF2- Integrated classroom management-accounting for 7% of the variance
- AF3- Ability to teach students with disabilities-accounting for 4% of the variance
- AF4- Special education vs. integrated education-accounting for 3% of the variance

Questions for the factor AF1 consisted of 10, 13, 17, 21, 25, 3, 5, and 7. Factor AF1 was used as the representative factor for the variable of attitude because of the high variability accounted for (27%), consisting of eight questions. The theme for this factor focused on the preservice teacher's attitude toward the benefits of integrating students with special needs within the general education classroom.

Reliability of the ORI. Reliability refers to the consistency of a behavioral instrument to give the same reading upon repeated measures, assuming the subject is in a steady state (Shavelson, 1996). Chronbach's alpha is designed as a measure of internal consistency for reliability (George & Mallery, 1995). Antonak and Larrivee (1995)

reported Chronbach's alpha, a measure of internal consistency, on this instrument to be .88. George and Mallery (1995) suggest an alpha of .88 shows excellent internal consistency reliability.

Validity of the ORI. Content validity refers to the amount to which a particular assessment measures an intended content area. Content validity is required in a theory-based assessment such as this instrument. Antonak and Larrivee (1995) used a hierarchical multiple regression analysis for this instrument. An analysis of residual plots and relevant tests showed the regression was linear, the residuals random, normally distributed, and independent of the predictors.

#### Special Needs Confidence Scale

The Special Needs Confidence Scale- SNCS (LePage, Lewis, & Casella, 1995) was utilized for the confidence measure and consisted of forty-six questions, focusing on the pre-service teacher's beliefs about his/her confidence levels in dealing with students having special needs. A five-point Likert-like Scale was utilized, ranging from "Least" (1) to "Most" (5). The participants were instructed to circle the number on the scale which most accurately reflected their relative confidence with the items listed. It was stated that (1) represents the lowest level of confidence and (5) represents the highest level of confidence. Twelve of the questions examined the knowledge base of current teaching methods and strategies of the individual pre-service teacher and his/her perceived abilities to manage various categories of disability. Twenty-two questions addressed the confidence level of preservice teachers in the teaching environment. The last twelve questions dealt directly with the confidence level of the pre-service teacher's ability to

effectively work with various categories of disability (i.e., I am confident that I can effectively teach students who are: physically challenged, severely handicapped, autistic, etc.).

There were two levels of confidence utilized for this study. The overall Confidence score of low or high was determined through a median split of the cumulative frequency distribution of scores. This allowed the variable of confidence to be classified into two levels, allowing effect differences to be made with regarding to training and geographic background.

Content Validity of the SNCS. In developing the Special Needs Confidence Scale, a panel of three experts were asked to review this instrument for content validity (LePage, Lewis, & Casella, 1995). Professors and colleagues involved with special education were asked to determine whether the questions were appropriate, clear and whether content areas were covered adequately. The panel concurred the Special Needs Confidence Scale assessed confidence levels of teachers working with students having special needs.

Concurrent Validity of the SNCS. To determine if the instrument adequately assessed confidence, the Special Needs Confidence Scale instrument was compared to a similar instrument called the Conformity Scale (Kalaian, 1987). The Conformity Scale is a Likert-like scale measuring perceived confidence in working with students having special needs. Kalaian (1987) conducted tests of validity on this instrument. They utilized factor analysis to determine construct validity and alpha coefficients to test for reliability. The reliability for their instrument was determined to be .97.

Concurrent validity between the two instruments was utilized using a Pearson product-moment correlation coefficient. These scores correlated at .82.

Internal Consistency of the SNCS. The question of reliability addresses the issue of whether this instrument will produce the same results each time it is administered to the same participant in the same setting. A split-half reliability measure was used to check the internal consistency of the confidence scale. Related questions were paired together and then compared using a Pearson product-moment correlation coefficient. The internal consistency reliability was .95 (LePage, Lewis, & Casella, 1995), providing evidence of the reliability of the measure.

#### Procedure

The Institutional Review Boards of Oklahoma State University and Pittsburg State University approved applications for research so this study could be completed. Oklahoma State University's IRB approval was needed because of the researcher's enrollment in the universities doctoral program. Pittsburg State University's IRB approval was required because students enrolled in PSU's Education Department were utilized as possible participants.

All students enrolled in any combination of the three special education course options were asked to complete the demographics and two instruments. The study's participants included approximately 300 preservice teachers. The students were administered the questionnaire during class time before completion of their fall semester course work. Participants were all education majors. Professors who instructed the various courses proctored the completion of the questionnaire. A voluntary participation

form was attached to the front of each questionnaire to be signed by the participant and witnessed by the professor. Voluntary participation was utilized as opposed to random sampling because, as is often found in educational research, sampling from an entire population is not always possible (Reiman & Thies-Sprinthall, 1998).

Each participant was assigned a number based upon order of entry into the researcher's personal computer, not necessarily in the order the assessment was collected in the class. Variables for data entry were as follows: Age, Gender, Ethnicity, College Major, Classes taken, Class ranking, High school setting, Setting seeking employment, Questions 1 through 25 on the Attitude survey, and Questions 1-46 on the Confidence Scale.

#### Data Analysis

The purpose of this study was to investigate the effects of preservice teachers' educational training in special education, confidence in teaching, and geographic background on their attitudes toward working with students having disabilities. The following is an overview of the data analysis which was performed to address this research question.

#### Research Question

How does the level of preparatory training, teaching confidence, and geographic background affect preservice teachers' attitudes toward students with disabilities?

The independent variables for this question were the three levels of training, two levels of confidence, and two levels of predominate geographic background. The dependant variable was the attitude of the preservice teacher toward students with special needs.

The following seven hypotheses needed to be analyzed to answer the complete research question:

Null hypothesis 1: There are no significant differences between the three levels of training on preservice teachers' attitudes.

Null hypothesis 2: There are no significant differences between the two levels of confidence on attitude.

Null hypothesis 3: There are no significant differences between the levels of geographic background on attitude.

Null hypothesis 4: There is no significant interaction of training and confidence on attitude.

Null hypothesis 5: There is no significant interaction of training and geographic background on attitude.

Null hypothesis 6: There is no significant interaction of confidence and geographic background on attitude.

Null hypothesis 7: There is no significant interaction of training, confidence, and geographic background on attitude.

An analysis of variance was utilized to analyze the data to test the hypotheses. This allowed main effects (hypotheses 1 through 3) and interactions (hypotheses 4 through 7)



to be assessed. If differences were noted at the .05 level of significance, appropriate post-hoc analyses were conducted based upon the results of the study. A Scheffe' post hoc was utilized based on the premise that family wise Type I error could be maintained at a certain value, not dependant on the number of comparisons made. The Type I family wise error rate takes into account the probability of rejecting the null hypothesis one or more times when it is true (Keppel, 1991). Based on this premise, the Scheffe' post hoc is a positive choice because of its flexibility. The critical value of F was set at the .05 level, setting a ceiling on the family wise rate.

### Summary

Approval for this study was granted from both Oklahoma State University and Pittsburg State University (PSU). The population of currently enrolled education students were invited to be participants from PSU. All data was entered, analyzed, and interpreted using the SPSS statistical package (Norusis, 1993). An analysis of variance was performed between the three independent variables of training, confidence, and geographic background on the dependant variable of attitude. Three levels of training, two levels of confidence, and two levels of geographic background were used for this study. The Opinions Relative to the Integration of Students with Disabilities was used to assess the attitude of the participants toward students having special needs. The Special Needs Confidence Scale was used to assess the confidence level of the participants. A demographic questionnaire completed the instrument packet and included the question for the educational training variable and the third variable, geographic background. This design was used to allow exploration of main effects and interactions to answer the

research question: How does the level of preparatory training, teaching confidence, and geographic background affect preservice teachers' attitudes toward students with disabilities? The design would explore main effect differences between the levels of the individual variables and interaction effects between the variables.

## CHAPTER IV

### RESULTS

Presented in this chapter are the results of statistical analyses conducted to answer the research question. The purpose of this study was to explore the influence of educational training in special education, teacher confidence, and geographic background on preservice teacher's attitudes toward students with special needs.

Eligible candidates for the study were freshman, sophomores, juniors, seniors, and special students attending a Midwestern university and majoring in a teaching area requiring certification through a state education agency. Two hundred ninety-seven (297) students participated in the study. Eight participants were excluded from the study based on non-completion of the instrument packet. One participant was excluded because he was not pursuing an educational degree. Participants with a completed instrument packet entered in this study were two hundred and eighty-eight (288) preservice teachers. The participants completed an instrument packet consisting of a demographic questionnaire, a confidence scale, and an attitude scale. A three-way between subjects analysis of variance was utilized for the study.

#### Sampling Issues

This study did not randomize participants. All students currently enrolled in the university's educational courses were invited to participate in the study. This limits the

generalizability of the findings to the general population. This analysis of variance design suggests population differences between levels of the independent variables, training, confidence, and geographic background on attitude based on this sample. Of all candidates, 297 students chose to participate in the study. Nine were excluded from the population. This resulted in a population for the study of 288 participants.

#### Descriptive Statistics for the Demographic Questionnaire

Students participating in this study completed a demographic questionnaire with the following data solicited: age, gender, ethnicity, college major, training level received as of study, transfer student identification, class ranking, geographic background where the student was raised, and predominate geographic setting where employment would be sought. The following tables describe the participants in this study by the frequency of their responses to the different levels of this demographic information.

Age ranged from 18 years to greater than 26 with five possible levels. Table 3 shows the distribution of age by levels. The lowest participation level was the 24-25 age group making up 6.9 percent of the participants with an n=20. The largest level was made up of the 20-21 age group, 45.1 % of the participants.

Participants were asked to indicate gender for this study, male and female. Thirty-two percent of the participants were males (n=93) with sixty eight percent being females (n=195). Table 3 shows the distribution of the subjects broken down by age and gender.

Table 3

Frequency Distribution of Age and Gender (N=288)


---

<u>Age</u>	<u>Age of Participants</u>			<u>Percent of Sample Total</u>
	<u>Frequency</u>	<u>Male</u>	<u>Female</u>	
18-19	35	9	26	12.2
20-21	130	29	101	45.1
22-23	61	38	23	21.2
24-25	20	12	8	6.9
26 or older	42	5	37	14.6
<u>Gender</u>				
Male		93		32.3
Female		195		67.7

---

Ethnicity was determined to indicate cultural background of students enrolled in the courses. Six levels were used with three of the levels making up only 10% of the participants (African-American, n=3; Native American, n= 5; and Other, n=9). Table 4 explains the frequencies of the six levels with percentages of the total participants. Nine students marked the sixth level of Other specifying combinations of the five other levels or stating a country.

Table 4

Frequency Distributions for the Six Levels of Ethnicity (N=288)


---

<u>Ethnicity</u>	<u>Ethnicity of the Participants</u>	
	<u>Frequency</u>	<u>Percent of Sample Total</u>
African-American	3	1.0
Asian/Pacific	15	5.2
Caucasian	256	88.9
Native American	5	1.7
Other	9	3.1

---

College major consisted of the five levels generally accepted as traditional certification programs. Frequencies of these certification areas are shown in Table 6. Early Childhood consisted of eight participants making up 2.8% of the participants. Elementary Education majors made up the largest group (n=119, 41%). Secondary Certification students encompassed 115 participants, 39.9%. Students in their junior and senior years may pursue a minor in special education with certification in mental retardation. Students making up this level consisted of an n=21 and making up 8.7% of the participants. The last level, Other (n=25, 7.3%), consisted of double majors and special students undecided in certification areas. The scope of this demographic question could later be used to signify strengths in the different certification areas addressing special education training. That, however, does not enter into the research question for this study.

Table 5

Frequency Distributions for College Major (N=288)


---

<u>College Major</u>	<u>College Major of the Participants</u>	
	<u>Frequencies</u>	<u>Percent</u>
Early Childhood	8	2.8
Other	21	7.3
Special Education minor	25	8.7
Secondary Education	115	39.9
Elementary Education	119	41.3

---

The amount of training in special education received or currently being received as preservice teachers is of major importance because it serves as the educational training independent variable for this study. There are three levels to this training. The first level consists of having taken or currently enrolled in one of three overview classes introducing beginning students to topics of special education. The second level consists of the courses in level one plus understanding educational evaluation, introduction to students with mental retardation, and classroom management classes. The third level of training consists of the classes taught for levels one and two plus actual application and methods of explicit techniques in working with students having disabilities. Each level is systematically developed to give the preservice teacher increased skills and knowledge in dealing with students having special needs. According to Table 6, 172 students had received training on level one (59.7%), 54 students were in Level 2 (18.8%), and 62 students in Level 3 (21.5%).

Table 6

Frequency Distributions for the Three Levels of Training (N=288)


---

Training Background of the Participants

<u>Training in Special Education</u>	<u>Frequency</u>	<u>Percent of Sample Study</u>
Level 1	172	59.7
Level 2	54	18.8
Level 3	62	21.5

---

The demographic information sheet asked for information on having transferred from another school. Two options were given as displayed in Table 7. The options were YES (n= 127, 44.1 % of participants) or NO (n=161, 55.9% of participants). An additional space was available at the end of this question to explore possible equivalent classes having been completed at another school in relation to Question 5 (training levels in special education). Five students expounded on equivalent classes in one or more levels having been taken at other post-secondary schools. Their classes were added on to Question 5 for a more relevant background of training received. Because quality of classes was not measured as compared to quantity of classes taken for Question 5, adding completed classes from another post-secondary class that related directly to classes in the three levels was not deemed as tainting the data by the researcher. The addition of this question was used to alleviate any question a participant might have about questioning having the same class but at another university.



Table 7

Frequency Distributions for Transfer Status or Original Status of Students (N=288)


---

Transfer status or original student		
<u>Transfer Status</u>	<u>Frequency</u>	<u>Percent</u>
Transfer student	127	44.1
Original student enrollment	161	55.9

---

Class ranking consisted of leveling six different options available to preservice teachers. Table 8 showed Freshman consisted of an n=4 students, making up 1.4 percent of the participants. Sophomores consisted of an n=54, 18.8% of the participants. Juniors had the largest level (n=136, 47.2% of the participants). Seniors consisted of an n=91, making up 31.6% of the participants. The sixth level, Other, consisted of an n=3, making up 1% of the participants.

Table 8

Frequency Distributions for Class Ranking (N=288)


---

Ranking of Participants		
<u>Class Rank</u>	<u>Frequency</u>	<u>Percent of Sample Study</u>
Other	3	1.0
Freshman	4	1.4
Senior	91	31.6
Sophomore	54	18.8
Junior	136	47.2

---

Geographic Background is one of three independent variables in the research question for this study. Four levels were chosen for the geographic background variable ranging from broad rural areas to urban settings. Level 1 was defined as rural communities less than 12,000 (n=134, 46.5 %). Level 2 parameters were towns not bordering an urban area, population sizes 12,000 to 100,000 (n=81, 28.1%). Level 3 was defined as suburban communities bordering a metro area (n=33, 11.5%). Level 3 population ranges were 12,000 to 100,000. Level 4 encompassed urban areas of over 100,000 population (n=40, 13.9). Table 9 shows the frequency counts of the participants of this study according to geographic background.

The four levels of Geographic background were collapsed into two levels to alleviate an empty cell, which occurred in cell: Low confidence, level two of training, and suburban background . The collapsing of the four levels of geographic background into

two levels resulted in the following domains: Level one consisted of the combination of levels 1 and 2 (rural and town) while level 2 consisted of levels 3 and 4 (suburban and urban). The mean for level 1 (rural) was 4.29, standard deviation 1.21, and  $n=215$ . The mean for level 2 (urban) was 4.28, standard deviation 1.27, and  $n=73$ . As shown in Table 10, no significant difference was noted at the .05 level,  $F=.005(1, 287)$ ,  $p=.942$ .

Table 9

Frequency Distributions for Geographic Background

---

Geographic Background of Participants		
<u>Geographic Background</u>	<u>Frequency</u>	<u>Percent of Sample Study</u>
Rural	134	46.5
Town	81	28.1
Suburb	33	11.5
Urban	40	10.1

---

Table 10

F Table for the Two Levels of Geographic Background

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<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Geographic Background	4.98	1	4.98	.005	.942

---

Computed using  $\alpha=.05$

Future geographic settings where preservice teachers are currently entertaining employment is displayed in Table 11. Four levels make up the geographic location for future employment. Sizes are the same as question 8, Geographic Background. Future Rural settings made up 46.5 % (n=99) of the participants. Town settings made up 26.4% (n=76). Suburban settings showed 29.2 % (n=84). Urban future settings included 10.1% (n=29).

Table 11

Frequency Distributions for Future Geographic Setting (N=288)

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Future Geographic Setting of Participants		
<u>Future Setting</u>	<u>Frequency</u>	<u>Percent of Sample Study</u>
Urban	29	10.1
Rural	99	34.4
Town	76	26.4
Suburb	84	29.2

---

Sources Of Variance For This Study

Tests of “between-subjects effects” assessed main effects of training (three levels) on attitude, confidence (two levels) on attitude and geographic background of the participants (two levels) on attitude. This study further explored the interactions of training and confidence on attitude, training and geographic background on attitude,

confidence and geographic background on attitude, and the combination of all three independent variables: training, confidence, and geographic background on attitude.

Sources of variance assessed are displayed in Table 12.

Geographic background used four levels on the survey instrument distributed to the participants. In analyzing the data it was found two cells were empty, thus eliminating an analysis of variance. The four levels were collapsed into two levels, rural and urban, to alleviate the empty cells. Rural and town were combined from the original four levels and was referred to as the rural level. Suburb and urban from the original four levels of geographic background were combined to make the urban level.

Table 12

Sources of Variance

<u>Source</u>		<u>degrees of freedom</u>
Training	3-1	2
Confidence	2-1	1
Geographic Background	2-1	1
<hr/>		
T X C	2x1	2
T X GB	2x1	2
GB X C	1x1	1
T X C X GB	2x1x1	2
<hr/>		
S/TxCxGB	a(n-1) 3x2x2(12-1)	132
TOTAL-1	(288-1)=	287
<hr/>		

The design used to assess main effects and interactions for this study is displayed in Table 13. Means and number of participants in each cell are displayed. The ANOVA design consisted of a 3 X 2 X 2 analysis of variance.

Table 13

Diagram of Design for Training, Confidence, and Geographic Background on Attitude


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		<u>Low Confidence</u>			<u>High Confidence</u>			
		Training			Training			
		<u>L1</u>	<u>L2</u>	<u>L3</u>	<u>L1</u>	<u>L2</u>	<u>L3</u>	
GB	<u>R</u>	3.03	3.79	3.31	<u>R</u>	4.44	4.86	5.36
		n=116	n=6	n=35		n=28	n=30	n=35
	<u>U</u>	2.84	3.87	2.89	<u>U</u>	4.44	4.87	5.56
		n=18	n=6	n=35		n=28	n=17	n=27

---

The ANOVA Summary Table: Tests of Between-Subjects Effects (Table 14)

displays the results of this study showing main effect comparisons and interactions. Each main effect and interaction was individually explored, resulting in seven hypotheses needed to answer the research question.

Table 14

Analysis of Variance Summary Table

Dependent Variable: AF1

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<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Sig.</u>
Confidence	16.31	1	16.31	17.592*	.000
Training	28.13	2	14.06	15.168*	.000
Geo. Background	1.84	1	1.84	.000	.996
C X T	.372	1	.372	.401	.527
C X GB	3.58	1	3.58	.004	.950
T X GB	.808	2	.404	.436	.647
C X T X GB	3.29	2	3.29	.004	.952
S/TxCxGB	249.699	278	.928		
Total	5262.328	288			

---

\* computed using alpha= .05

## Hypothesis One

The null hypothesis stated there would be no difference between the levels of training on preservice teacher's attitudes toward working with students having special needs. Results suggest the null hypothesis can be rejected based on the statistically significant main effect. Significant differences were noted at the 0.5 level between the



three levels,  $F= 17.342 (2, 269)$ ,  $p= .000$ . A Scheffe' post hoc was used to locate the source of differences between the levels.

Results of the statistically significant main effect of training suggest attitude was influenced in a positive direction by the level of training. Level 1 consisted of basic introduction classes culminating in a basic overview of students with exceptionalities. Student attitude scores in Level One (mean=3.61) were significantly lower than scores in both Level Two (increased exposure to techniques and methodology, mean=4.39) and Level Three (explicit advanced techniques and methods, mean=5.49). Therefore, training affects the attitude of preservice teachers toward students with special needs in a positive direction in the study's population. Level Two of training (mean= 4.39) differed significantly from Level Three (mean=5.49) suggesting increased training affects the direction of preservice teacher's attitudes towards working with students having special needs. Table 15 displays the means of the three levels of training and their mean differences.

Table 15

Means and Pairwise Comparisons for Training

<u>Training Level</u>	<u>Mean Attitude Score</u>	<u>Scheffe' Results (.05 mean differences)</u>	
		<u>Level 2</u>	<u>Level 3</u>
1- General Theory	3.6097	-.7775*	-1.8795*
2- Increased tools/methods	4.3872	-----	-1.1020*
3- Increased knowledge base	5.4892		-----

\* The mean difference is significant at the .05 level.

Table 16 displays the summary of the tests of main effect differences. Results suggest the higher the amount of training received, the greater affect on the teachers' attitude toward students with special needs. Omega squared, reflecting explained variance was .05, suggesting moderate strength of this variable on attitude.

Table 16

Test for Main Effects of Training

<u>Source</u>	<u>Sum of Squares</u>	<u>df</u>	<u>Mean Square</u>	<u>F</u>	<u>Sig.</u>
Training	31.991	2	15.995	17.232	.000
Error	249.699	269	.928		

## Hypothesis Two

The null hypothesis stated there would not be a significant difference between the two levels of confidence on preservice teacher's attitudes towards working with students having special needs. Results suggest the null hypothesis can be rejected based on a significant main effect comparison between the two levels. The confidence score was divided by a median split between low and high with a median of 3.57. Table 17 displays the mean for the low level was 3.28 while the mean for the high level was 4.88. Results suggest a significant difference in attitude toward students with special needs between the two levels of confidence. The comparison shown in Table 18 displays an observed  $F=54.302(1, 269)$ ,  $p=.000$ . This result is significant at the .05 level, suggesting the null hypothesis can be rejected. This comparison suggests the higher the confidence of the preservice teacher towards working with students having special needs, the greater effect on attitude toward working with these students in the classroom. Omega squared for the confidence variable was .03, suggesting a small effect on the dependent variable, attitude.

Table 17

### Means and Pairwise Comparison of Confidence

Confidence level	Mean Attitude Score	Scheffe' results
Low Confidence	3.2830	-1.5973*
High Confidence	4.8803	1.5973*

\* denotes significance at the .05 level of confidence

Table 18

Test for Main Effects of Confidence

<u>Source</u>	<u>Sum of Squares</u>	<u>df</u>	<u>Mean Square</u>	<u>F</u>	<u>Sig.</u>
Confidence	23.702	1	23.702	25.534	.000
Error	249.699	269	.928		

## Hypothesis Three

The null hypothesis stated there would not be a significant difference between the preservice teachers' attitudes towards working with students having special needs between the two levels of geographic background. Results suggest the two levels of geographic background are not significantly different and thus the null hypothesis cannot be rejected. The two levels of geographic background rounded to 4.3 individually. Before rounding, explicit means were Level 1, Rural, 4.29 and Level 2, Urban 4.28. Results suggest no significant difference between the two levels of geographic background on preservice teacher's attitudes toward working with students having special needs. Omega squared, a reflection of explained variance of geographic background on attitude, was .001.

## Hypothesis Four

The null hypothesis stated there would not be a significant interaction between the independent variables of training and confidence on attitudes of preservice teachers toward working with students having disabilities. Results suggest there was not a significant interaction between training and confidence on attitude, suggesting the null hypothesis cannot be rejected.

### Hypothesis Five

The null hypothesis stated there would not be a significant interaction between the independent variables of training and geographic background on attitudes of preservice teachers toward students having disabilities. Results suggest the null hypothesis cannot be rejected. There was no significant interaction between the two variables of training and geographic background.

### Hypothesis Six

The null hypothesis stated there would not be a significant interaction between confidence and geographic background on attitude of preservice teachers toward students having special needs. Results suggest the  $H_0$  cannot be rejected. This suggests there was not a significant interaction between confidence and geographic background.

### Hypothesis Seven

The null hypothesis stated there would not be a significant interaction between the variables of training, confidence, and geographic background on the attitudes of preservice teachers toward students with disabilities. The  $H_0$  could not be rejected for this interaction. Results suggest no significant interaction between confidence, training, and geographic background within the participants of this study.

### Summary

The results of this study indicate training in special education had a significant influence on the attitude of preservice teachers toward students with special needs.

Apparently, based upon the post-hoc results, each progressive level of training in the areas of application and techniques for special education affected the attitude of these preservice teachers to a greater extent.

Teacher confidence was shown to influence the attitude shown by the participating preservice teachers. The significant difference between the two levels of confidence suggests teachers with greater confidence teachers held a more favorable attitude toward students with special needs than preservice teachers having a low confidence score.

Geographic background was not found to affect the attitude of the participants. There were no significant differences between the two levels of geographic background.

The interactions of training and confidence, training and geographic background, confidence and geographic background, and the combined interaction of training, confidence, and geographic background were not found to be significant, therefore, the null hypotheses for these effects were retained.

## CHAPTER V

### SUMMARY, CONCLUSION AND IMPLICATIONS

The purpose of this study was to explore the influence of educational training in special education, teacher confidence, and geographic background on preservice teachers' attitude toward students with disabilities. Although combinations of educational training, confidence, and attitude have been explored in various combinations (Hegler, 1995; Kalajian, 1987; Reynolds, 1976), seldom has it been thought how one's training in special education, teacher confidence, and upbringing might influence the attitude toward working with students having disabilities. Geographic background was included in the current study based on the need for understanding how to assist school districts in filling the void of special education shortages across the country and retaining current staff in their present responsibilities (Gamble, 1995). Possible areas for inservice training and professional growth for service teachers may be expanded knowing the influence of specific training and confidence on attitude.

#### Summary of Findings

Increased educational training in the areas of interventions and application for students having special needs has been shown to impact preservice teachers' attitudes toward students with special needs. The current study confirmed this premise. Increased training in special education was verified as influencing a preservice teacher's attitude

toward working with students having special needs. Preservice teachers that completed increased method and application classes addressing techniques to be used with students having disabilities showed an improved attitude over teachers who did not have this training. The differences between the levels of training in special education verifies a positive influence in attitude with increased training.

The confidence of the preservice teacher toward working with students having disabilities was confirmed to influence attitude toward working with these students. Significant differences between the two levels of confidence concludes an increase in positive attitude with an increased level of confidence. An increase in attitude toward working with these students is theorized to influence the teacher's behavior in the classroom. The higher the level of confidence the more positive the attitude toward students with disabilities.

Geographic background of the participants of this study did not have a significant impact on influencing their attitude toward students with special needs. The combinations of interactions between training in special education, teacher confidence, and geographic background did not significantly influence the attitude of the preservice teacher toward students with disabilities.

The findings and conclusions for this study are restricted to this study's population. Randomization was not utilized, restricting generalizability to outside populations.



## Conclusions

In the current study, the more the training level in special education method and techniques, the more improvement in a preservice teachers attitude toward students with disabilities. The significant differences between basic overview classes and increased application and methodology was confirmed as influencing attitude in a positive direction based on increased level of training. The difference between basic application and methodology and advanced techniques and application in dealing with the spectrum of disabilities under IDEA verified that increased training affected the attitude of these preservice teachers to a greater degree than lower levels of training. This finding indicates that districts should incorporate more training techniques in special education implementation through professional growth opportunities by staff. The benefits for the district would include an increase in positive attitude among staff toward working with students having disabilities, influencing the productivity and success of the student.

The teacher's confidence level was shown to influence a teacher's attitude toward students with disabilities. This finding indicates staff development topics designed to enhance a teacher's confidence level in dealing with students having special needs may play an integral part in the acceptance level of students having diverse needs in the classroom, thus leading to improved student success. Increased confidence impacts the efficacy level of classroom teachers believing they can influence student outcomes in a positive direction. The higher confidence level suggested the more positive influence on attitude toward students with disabilities. Regardless of training, teachers displaying a higher amount of confidence in dealing with diverse student needs was shown to influence

their attitude toward students with special needs in a positive direction, indicating possible increased success of students with disabilities in inclusive delivery systems.

Differences in geographic background did not influence the attitude of the preservice teachers toward working with students having disabilities in the current study. Whether a background from rural or urban influence was the geographic mainstay of the preservice teacher, a significant influence on attitude toward working with students having disabilities was not confirmed. The findings indicate the influence of size in population area where elementary and secondary education was received was not significantly important in influencing the attitude of the preservice teacher toward students with disabilities.

Findings suggested the interaction of both training in special education levels and teacher confidence levels did not significantly influence a teacher's attitude toward students with disabilities. This indicates regardless of confidence level, a similar pattern of variances between training levels was noted. Thus, training influences the attitude of preservice teachers the same regardless of the teaching confidence of the preservice student. This information may be used by administrative staff and department heads in deciding staff development topics for a range of confidence levels.

The findings indicated no significant difference between interaction level combinations of teaching confidence and geographic background on the preservice teacher's attitude toward students with disabilities. This indicates differences in geographic background does not impact confidence levels in teaching on the attitude of the study's preservice teachers toward students with disabilities.

No significant interaction was found using the combined levels of training in special education, teacher confidence, and geographic background on the attitude of preservice teachers toward students having disabilities. This finding indicates training in special education influences the attitude of preservice teachers the same regardless of geographic background or level of teacher confidence.

Continued research in the area of identifying influencing factors of qualified general education personnel in working with students having disabilities is warranted based on the dilemma of the shortage of qualified special education teachers entering the field (Williams, 1994). Improving the attitude of current teachers working with students having diverse needs is essential if the concept of inclusion is to be successful. Both of the areas of educational training and confidence confirmed increased levels of both entities affected attitude in a positive direction. The findings indicate knowing increased training in special education impacts positive attitude change and increased teaching confidence influences positive attitude change. These findings indicate the possibility of administrators utilizing these subjects for program and staff professional development goals whose target is increased positive attitude toward inclusion model deliveries.

#### Implications for Theory

Attitude has been shown to be a building block to acceptance of the inclusion model, self-efficacy beliefs of positive change, and successful productivity by students with disabilities in the classroom. Special programming, teachers possessing improved special skills producing more effective programs for students with disabilities, and effective programs in techniques and application of explicit methodology geared toward students

with disabilities will produce positive change in student performance (Lillie, Lubker, Rhodes, & Wynes, 1986; Sarason, 1993; & Wasley, 1998). The findings support the premise increased training and confidence influence attitude. When data supports theory, a foundation is given to the theory. This allows SEAs and LEAs to add to the possibilities of professional growth for teachers in the area of improving attitude toward students having diverse needs. Attitude has been suggested as a viable part of the foundation of success for students with disabilities in the general education classroom (Brantlinger, 1996; Olson, Chalmers, & Hoover, 1997; Tom, 1984; & Weiderholt, 1974). Knowing attitude as part of the self-efficacy construct allows another component to be identified by administrators of a successful classroom for students having special needs. The self-efficacy construct is supported by the findings indicating increased confidence in teaching affects the belief/attitude of the preservice teacher. Increasing a teacher's belief in bringing about change in the classroom parallels confidence to bring about a change. Influencing the level of attitude of teachers having direct contact with students having diverse needs through staff development may influence the growth of productivity in the classroom of specific students, influence self-esteem of students, and increase the overall learning atmosphere of the classroom for all students.

Quality training has been shown to improve teacher attitudes and a recognized need to individualize programs for students having different needs (Brantlinger, 1996). Believing increasing a teachers exposure to more involved special education techniques and application raises one's attitude is indicated by the findings of the current study, lending support to self-efficacy theory. Progressive levels of educational training in the

areas of intervention for students having below grade level academic skills may foster growth not only with these students, but influence the acceptance level of all students in the classroom by having all students with various strengths and weaknesses succeed. Educational training without practical application is of little use to teachers entering the field of education (Wasley, 1998). Having a theoretical framework without tools to actually carry into the classroom is of little use to practicing teachers (Reiman & Thies-Sprinthall, 1998). Explicit skills in dealing with students having diverse needs in classrooms appears to be a key for overall growth and development in individual classrooms where students of all capabilities are being educated.

How training is delivered is a key element impacting the success of students in an inclusive setting (Coissairt, Jacobs, & Shade, 1990). Having teacher training institutions including increased methods courses in how to work with students having disabilities is seen as paramount to successful inclusion (Hill & Reed, 1982). Teaching is described as a moral craft needing to be shaped by skills, better methods, and increased tools to impact all students (Tom, 1984). A fundamental part of the ability to exercise these skills is described in the self-efficacy construct theorized by Bandura (1986, 1989a, 1997) and supported by Pajares (1992). These two researchers emphasized the importance of confidence in performing tasks and the perceived ability to perform these tasks based on an acquired level of expertise. Bandura's self-efficacy construct was seen as a basic building block in a person's perceived ability to accomplish a task (Chester & Beaudin, 1996). The importance of this construct to education is emphasized by Pajares (1992, p.307) who stated, "The belief teachers hold influence their perceptions and judgments,

which, in turn, affect their behavior in the classroom". Having resources available in the form of support, latitude to implement acquired skills dealing with students having atypical needs, and a knowledge base of skills to meet these students' needs appears to be essential in delivering quality services under IDEA and 504 mandates.

Confidence and self-efficacy beliefs about success have been shown to influence a willingness to work successfully in context specific areas (Bandura, 1977; Pajares, 1992; Wigle & Wilcox, 1996). As pointed out by Chester and Beaudin (1996), Bandura's (1989a, 1989b) self-efficacy theory and the underlying construct of confidence are fundamental parts of a person's perceived ability to exhort skills, methods, and tools to influence environmental contexts. Attitude is part of the framework of perceived abilities to make a difference in context specific areas including general education classrooms practicing inclusion. Attitude can be influenced by changes in confidence which is a fundamental part of influencing a classroom atmosphere. Confidence appears to carry over into increased productivity by students, raised expectation levels by students having below grade level academic skills, and acceptance levels of the classroom teachers themselves. This appears to be a possible area administrators and building personnel may use through professional staff development to increase more positive program delivery in meeting the needs of both IDEA and general education students.

Insight into the influences of teacher confidence and training in special education on attitude may assist higher education training institutions, accrediting agencies, SEAs, and LEAs to explore incorporating new building blocks of these domains into professional growth experiences in undergraduate classroom settings and inservice settings in LEAs.

As theorized by Gusky and Huberman (1995), diverse experiences in educational delivery systems exposes preservice teachers to a wider array of application opportunities.

Exploring topics that influence confidence and training levels for schools using inclusion as a delivery model can be enhanced through knowing higher confidence levels can have a positive affect on a prospective teacher's attitude toward working with students having disabilities. Assessing this confidence level through a screening instrument such as the Special Needs Confidence Scale can facilitate more data to be used by administrators in decision making for professional growth experiences for staff.

The self-efficacy construct theorized by Bandura (1989a, 1989b) suggests a teacher's belief implementing a specific behavior in a classroom will result in achieving a desired outcome. Attitude has been shown as part of the building block of this construct. Administrative personnel, knowing attitude may influence a teacher's success in the classroom, may use this as a criteria for developing more effective programming for staff development. Increased self-efficacy beliefs in the classroom could have the desired result of increased program evaluation by SEAs in compliance checks, based on increasing attitudes through increased training.

Gamble (1995) suggested an attrition rate of 30%-50% of teaching positions occurring because a lack in confidence working with the diverse needs of students impacted longevity. This could mean hiring up to one half of a building's staff each year if the teachers did not come equipped with a belief or confidence level ready to deal with diverse

student needs. Building the levels of confidence and skills to teach students having diverse needs may pay dividends in longevity of positions and assist in retaining staff in positions where they feel they have a more positive impact on students.

A significant relationship between time spent with a student and their academic success in the classroom was shown by Thousand & Burchard (1990). As pointed out by Brantlinger (1996), this relationship can be affected by an attitude of nonacceptance by the classroom teacher, often based on the negative attitude and lack of confidence felt by the teacher. This attitude difference can have an influence on teacher productivity in the classroom as proposed by Bandura's self-efficacy theory. Knowing the self-efficacy construct influences outcomes in classrooms by students having diverse needs allows topics of program development to focus on improving belief systems of teachers.

The work of Gibson and Dembo (1984) suggested higher confidence teachers engage in more practices to assist student achievement gains. Assistance for low achieving students was found to increase with high confidence teachers over low confidence teachers. The attitude of school personnel toward students with special needs is a variable that can carry much weight in improving successful outcomes of students with disabilities in a general education setting.

#### Implications for Practice

School administrators, educational training institutions, and accrediting agencies armed with the knowledge that increased training and confidence may positively influence a teacher's attitude toward students having disabilities may use this information in staff development, program development, interviewing strategies, and curriculum requirements



for general education teachers in the future. A teacher's attitude and belief that a student can learn in their classroom is the cornerstone to having success by the student in an inclusive setting and further adds to an overall effective school (Glickman, Gordon, & Ross-Gordon, 1995). This training needs to give preservice teachers a greater array of interventions to use in the classroom setting. Understanding the influences of teacher productivity, student success, and the overall success of the implementation model of inclusion is needed to assist administrators in employment practices, staff development, and assist teachers of preservice training institutions in examining curriculum for improved productivity (Patrick, Hicks, & Ryan, 1997). The attitude of teachers toward their students was shown to be a part of teacher self-efficacy in teaching of students with diverse needs (Lundstrom, 1979).

How to influence the attitude of preservice teachers toward working with students having special needs appears to be a building block that cannot be ignored for improving program development in meeting the needs of student having disabilities functioning in general education classrooms. As confirmed by Antonak and Larrivee (1995) in the development of their attitude scale, the success of inclusion is dependent upon the attitude brought into the classroom by the general education teacher. Increased tools, methods, and skills learned by teachers can influence attitude and thus play a role for administrators to build upon a teacher's level of self-efficacy, success of students with special needs in the classroom, and acceptance by other non-disabled peers. This information on influencing teacher attitude may be used from local districts to state agencies to assess programming influencing this important part of student success in the classroom.

The importance of teacher attitude has been the subject of many studies. Soodak, Podell, and Lehman (1998) concluded attitude impacted time spent with students having special needs. The time spent with these students was found to influence student success. Educational training and confidence level may help school personnel in increasing attitude levels of staff, thus influencing the self-efficacy belief of their staff. This may be accomplished by entering increased training techniques in staff development of local teachers or in training exercises for educational teaching institutions. Higher attitudes suggest increased time spent with struggling students, more praise for individually struggling students, and less criticism of these students by classroom teachers.

The higher the training level received in working with students having disabilities, the greater affect on attitude toward students with disabilities. This supports conclusions made by Brantlinger (1996), Sarason (1993), Wasley (1998), and Weiderholt (1974), that a variety of strategies, techniques, and methods will assist the preservice teacher in accepting and being prepared to meet the needs of students with varying abilities and offers added tools and skills for the classroom. Similar conclusions were found by Hegler (1995) that suggested increased training affected the acceptance level of teachers having students with special needs in their classroom, thus possibly impacting the level of attitude and belief that all students can succeed. A teacher's lack of skills in working with students having diverse needs has shown a reluctance to accept and a decreased positive attitude toward including these students in the general education classroom (Olson, Chalmers, &

Hoover, 1997). Improving attitude of a teacher in both general education and special education classrooms cannot be overemphasized in developing a more effective delivery system for administrators wanting to increase student outcomes.

Preservice training should not be construed as the only vehicle effective in changing a teacher's attitude, as pointed out by Weiderholt (1974). This assumption would be both narrow and inadequate. Quality training in special education, though, was seen by Brantlinger (1996) as being related to improved teacher attitude and increased skills in working with diversified student needs. Improving attitude can be accomplished in both preservice programming and staff development for current staff in the teaching field. It has been suggested a lack of training may be the number one negative impactor toward working with students having disabilities (Hill & Reed, 1982).

High attrition rates among personnel having a lack of training in special education was confirmed as a significant concern to school administrators (Gamble, 1995). The success of general education teachers working with students having special needs was found to be dependent upon the level of teacher training at the preservice level (Lesar, 1996). The type of training required to assist preservice teachers in working with the special needs of many students has been a high level of importance for many training institutions and state accrediting agencies. Providing preservice teachers with the proactive tools to work with diversified students needs has been discussed at all higher institutions and accrediting agencies.

As concluded by Ludlow, Wienke, Henderson, and Klien (1998), rural special education is in a crisis of finding available certified staff to fill positions in special

education areas. Putting general education staff into these positions can influence the longevity in the position, influence attitude toward the students served, and lower the confidence level of the teacher. Without proper training and a high level of confidence, effective teaching of students with special needs can be an uphill climb with limited success. Increasing the level of attitude through increasing the tools, methods, and confidence for teaching students having disabilities is an insight to be applied in many aspects of the education profession from preservice training experiences to implementation in school systems.

Geographic background was not found to influence the attitude of preservice teachers, suggesting administrators may rule this out as influencing the attitude of prospective teachers dealing with students having diverse needs in hiring practices or evaluation of personnel. Conclusions cannot be drawn that attitude may be influenced by urban students' increased exposure to disabilities or rural area students' underexposure to disabilities. Conclusions cannot be drawn concerning attitude being significantly influenced by urban students' possible increased exposure to students with disabilities in the classroom any more than rural students' not having a high frequency of students with disabilities in the classroom.

#### Recommendations for Further Research

Each year school administrators are faced with the dilemma of unfilled special education positions being filled by noncertified special education staff in rural areas. A second dilemma is how to retain the current certified staff in their present positions. Exploration of why a particular geographic location would be sought over another would

further add to insight by administrators in their hiring practices. How to keep competent personnel in the district's locale is another area needed for future study.

Training in the form of increased application and methodology in special education was explored in the current study. Training in the forms of increased awareness of collaboration and consultation in special education have been shown to be a viable part of effective teacher improvement (Olebe, Jackson, & Danielson, 1999). Combining increased levels of methodology, techniques, collaboration, and consultation may add further insight into longevity of teachers remaining in the profession. This exploration may aid administrators in interview processes for prospective teachers working with the challenge of meeting the needs of all students and improving program development through more effective staff development. Exploring other variables that may influence attitude other than training and confidence would give school personnel more tools in developing programs targeting the exploration of increased student outcomes in the classroom.

The variables used in this study included training in special education, teaching confidence, and geographic background on preservice teacher's attitudes toward students with disabilities in a restrictive research environment. Further research of these variables could include sampling a much larger population of preservice teachers to allow generalization to a greater population. Because all preservice teachers in the university's education department were invited to participate, generalization was not possible.

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## APPENDICES

APPENDIX A  
CONSENT FORM

11-27-98

Attachment A

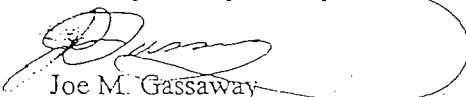
Dear Student,

I am asking your help in completing a study about pre-service teacher's training, self-efficacy and attitudes toward teaching students with disabilities. Each participant will complete a questionnaire on confidence and a questionnaire on attitudes toward teaching students with disabilities. It should take you no longer than 15 minutes. Confidentiality of the results and procedures will be maintained as follows: No names or numbers will be assigned to completed questionnaires.

There should be no discomforts or risks as you complete this assessment. You may stop at any time.

If you are willing to assist in this project designed to better understand how to prepare teachers to meet the needs of students with disabilities, please sign below.

Thank you for your help,



Joe M. Gassaway

I understand that participation is voluntary, that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time without penalty.

If I have any questions I can call: Joe Gassaway, (417)-649-7049, Dr. Nick Henry, PSU Special Education Department, or Dr. Diane Montgomery, (405), 744-9441, Oklahoma State University.

\_\_\_\_\_  
Participant's signature

\_\_\_\_\_  
Witness

**APPENDIX B**  
**DEMOGRAPHIC QUESTIONNAIRE**

- 
- 1) Please check one of the following categories to indicate your age range:  
 18-19     20-21     22-23     24-25     26 or older
- 2) Please indicate gender:     male     female
- 3) Please identify ethnicity:  
 African-American     Asian/Pacific     Caucasian     Hispanic  
 Native American     other, please specify: \_\_\_\_\_
- 4) College Major:     Early Childhood     Elementary Education  
 Secondary Education     minor in special education  
 other: \_\_\_\_\_
- 4) Please check classes in which you are now enrolled or have completed:  
 SSLS 510- Overview of Education for Exceptional Students  
 CURIN 306- Pre-professional Lab 1  
 CURIN 307- Pre-professional Lab 2  
  
 SSLS 739- Individuals with Mental Retardation  
 SSLS 745- Classroom Management Techniques  
 SSLS 750- Educational Evaluation  
  
 CURIN 475- Supervised Teaching in Elementary School  
 CURIN 480- Supervised Teaching in Secondary School  
 SSLS 761- Practicum in Special Education  
 SSLS 751- Working with Families of Exceptional Children  
 SSLS 769- Children with Language Disabilities  
 SSLS 740- Techniques of Instruction for the Mentally Retarded
- 5) Did you transfer from another school before PSU?     Yes     No  
 If YES, please list comparable courses taken at the other school:  
 \_\_\_\_\_  
 \_\_\_\_\_
- 
- 6) Class ranking:     Freshman     Sophomore     Junior  
 Senior     Special Student     Other:
- 7) Which type of predominate setting were you raised?  
 Rural (community less than 12,000 population)  
 Town (12,000-100,000, not bordering an urban area)  
 Suburb (12,000-100,000, bordering an urban area)  
 Urban (large metro, over 100,000 population)
- 8) Which type of predominate setting would you seek for educational employment?  
 Rural (community less than 12,000 population)  
 Town (12,000-100,000, not bordering an urban area)  
 Suburb (12,000-100,000, bordering an urban area)  
 Urban (large metro, over 100,000 population)



APPENDIX C  
OPINIONS RELATIVE TO THE INTEGRATION  
OF STUDENTS WITH DISABILITIES

## ATTACHMENT C

### Opinions Relative To The Integration Of Students With Disabilities

**General Directions:** Educators have long realized that one of the most important influences on a child's educational progress is the classroom teacher. The purpose of this questionnaire is to obtain information that will aid school systems in increasing the classroom teacher's effectiveness with students with disabilities placed in his or her classroom. Please circle the number to the left of each item that best describes your agreement or disagreement with the statement. There are no correct answers; the best answers are those that honestly reflect your feelings. There is no time limit, but you should work as quickly as you can.

*Please respond to every statement.*

**KEY**

-3: I disagree very much  
-2: I disagree pretty much  
-1: I disagree a little

+1: I agree a little  
+2: I agree pretty much  
+3: I agree very much

- |    |    |    |    |    |    |   |
|----|----|----|----|----|----|---|
| -3 | -2 | -1 | +1 | +2 | +3 | 1. Most students with disabilities will make an adequate attempt to complete their assignments.   |
| -3 | -2 | -1 | +1 | +2 | +3 | 2. Integration of students with disabilities will necessitate extensive retraining of general-classroom teachers.                       |
| -3 | -2 | -1 | +1 | +2 | +3 | 3. Integration offers mixed group interaction that will foster understanding and acceptance of differences among students.              |
| -3 | -2 | -1 | +1 | +2 | +3 | 4. It is likely that the student with a disability will exhibit behavior problems in a general classroom.                               |
| -3 | -2 | -1 | +1 | +2 | +3 | 5. Students with disabilities can best be served in general classrooms.   |
| -3 | -2 | -1 | +1 | +2 | +3 | 6. The extra attention students with disabilities require will be to the detriment of the other students.                               |
| -3 | -2 | -1 | +1 | +2 | +3 | 7. The challenge of being in a general classroom will promote the academic growth of the student with a disability.                     |
| -3 | -2 | -1 | +1 | +2 | +3 | 8. Integration of students with disabilities will require significant changes in general classroom procedures.                          |
| -3 | -2 | -1 | +1 | +2 | +3 | 9. Increased freedom in the general classroom creates too much confusion for the student with a disability.                             |
| -3 | -2 | -1 | +1 | +2 | +3 | 10. General-classroom teachers have the ability necessary to work with students with disabilities.                                      |
| -3 | -2 | -1 | +1 | +2 | +3 | 11. The presence of students with disabilities will not promote acceptance of differences on the part of students without disabilities. |

Please respond to every statement.

## KEY

-3: I disagree very much  
-2: I disagree pretty much  
-1: I disagree a little

+1: I agree a little  
+2: I agree pretty much  
+3: I agree very much

- |    |    |    |    |    |    |   |
|----|----|----|----|----|----|---|
| -3 | -2 | -1 | +1 | +2 | +3 | 12. The behavior of students with disabilities will set a bad example for students without disabilities.  |
| -3 | -2 | -1 | +1 | +2 | +3 | 13. The student with a disability will probably develop academic skills more rapidly in a general classroom than in a special classroom.  |
| -3 | -2 | -1 | +1 | +2 | +3 | 14. Integration of the student with a disability will not promote his or her social independence.   |
| -3 | -2 | -1 | +1 | +2 | +3 | 15. It is not more difficult to maintain order in a general classroom that contains a student with a disability than in one that does not contain a student with a disability.              |
| -3 | -2 | -1 | +1 | +2 | +3 | 16. Students with disabilities will not monopolize the general-classroom teacher's time.  |
| -3 | -2 | -1 | +1 | +2 | +3 | 17. The integration of students with disabilities can be beneficial for students without disabilities.  |
| -3 | -2 | -1 | +1 | +2 | +3 | 18. Students with disabilities are likely to create confusion in the general classroom.   |
| -3 | -2 | -1 | +1 | +2 | +3 | 19. General-classroom teachers have sufficient training to teach students with disabilities.  |
| -3 | -2 | -1 | +1 | +2 | +3 | 20. Integration will likely have a negative effect on the emotional development of the student with a disability.   |
| -3 | -2 | -1 | +1 | +2 | +3 | 21. Students with disabilities should be given every opportunity to function in the general classroom where possible.   |
| -3 | -2 | -1 | +1 | +2 | +3 | 22. The classroom behavior of the student with a disability generally does not require more patience from the teacher than does the classroom behavior of the student without a disability. |
| -3 | -2 | -1 | +1 | +2 | +3 | 23. Teaching students with disabilities is better done by special- than by general-classroom teachers.  |
| -3 | -2 | -1 | +1 | +2 | +3 | 24. Isolation in a special classroom has a beneficial effect on the social and emotional development of the student with a disability.  |
| -3 | -2 | -1 | +1 | +2 | +3 | 25. The student with a disability will not be socially isolated in the general classroom.   |

THANK YOU FOR YOUR ASSISTANCE IN RESPONDING TO THIS QUESTIONNAIRE

Barbara Larrivee  
Richard F. Antonak

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APPENDIX D  
SPECIAL NEEDS CONFIDENCE SCALE

## ATTACHMENT D

## Special Needs Confidence Scale

Circle the number on the scale which most accurately reflects your relative confidence with the issues listed below. (#1 represents the lowest level of confidence and #5 represents the highest level of confidence)

	Least					Most
	1	2	3	4	5	
1. I feel confident in my ability to teach students with disabilities.	1	2	3	4	5	
2. I feel confident that I can develop materials that will meet the needs of special students.	1	2	3	4	5	
3. I feel confident that I can use different media to enhance individual learning styles.	1	2	3	4	5	
4. I have a large repertoire of teaching strategies that assist my teaching efforts with diverse styles.	1	2	3	4	5	
5. I feel confident that I can write meaningful and appropriate educational goals.	1	2	3	4	5	
6. I feel confident that I can provide my students with opportunities for success.	1	2	3	4	5	
7. I am confident that I can adapt a learning environment so that special needs students can participate.	1	2	3	4	5	
8. I feel comfortable with the terminology used in special education.	1	2	3	4	5	
9. I know what types of assessment instruments are available.	1	2	3	4	5	
10. I feel comfortable with the terminology used in special education.	1	2	3	4	5	
11. I feel confident that I can adapt materials to meet the needs of students with different learning speeds.	1	2	3	4	5	
12. I feel confident that I can accurately evaluate the effects of instruction.	1	2	3	4	5	
13. I feel confident that I can use new technologies with special needs students to enhance classroom participation and instruction.	1	2	3	4	5	
14. I feel confident that I can use new assistive technologies to help students adapt to their environment.	1	2	3	4	5	
15. I feel confident that I can create a cooperative classroom environment.	1	2	3	4	5	
16. I feel confident that I can make a change in my student's academic achievement level.	1	2	3	4	5	
17. I feel confident that I can make a student more competent.	1	2	3	4	5	
18. I feel confident that I can make a student more productive.	1	2	3	4	5	

19. I am confident that I can make a change in a student's quality of life. 1 2 3 4 5
20. I am confident that I can make a positive change in a student's self-esteem. 1 2 3 4 5
21. I am confident that I can provide accurate information to parents about opportunities for their children. 1 2 3 4 5
22. I feel confident when evaluating the effectiveness of educational media for special needs students. 1 2 3 4 5

**I know current teaching methods and strategies for working with students who are:**

23. physically challenged 1 2 3 4 5
24. severely handicapped 1 2 3 4 5
25. developmentally disabled 1 2 3 4 5
26. hearing impaired 1 2 3 4 5
27. visually handicapped 1 2 3 4 5
28. speech disabled 1 2 3 4 5
29. autistic 1 2 3 4 5
30. seriously emotionally disabled (BD) 1 2 3 4 5
31. learning disabled 1 2 3 4 5
32. at-risk 1 2 3 4 5
33. culturally diverse 1 2 3 4 5
34. regular education 1 2 3 4 5

**I am confident that I can effectively teach students who are:**

35. physically challenged 1 2 3 4 5
36. severely handicapped 1 2 3 4 5
37. developmentally disabled 1 2 3 4 5
38. hearing impaired 1 2 3 4 5
39. visually handicapped 1 2 3 4 5
40. speech disabled 1 2 3 4 5
41. autistic 1 2 3 4 5
42. seriously emotionally disabled (BD) 1 2 3 4 5
43. learning handicapped 1 2 3 4 5
44. at-risk 1 2 3 4 5
45. culturally diverse 1 2 3 4 5
46. regular education 1 2 3 4 5

APPENDIX E  
IRB ACCEPTANCE FROM  
PITTSBURG STATE UNIVERSITY



Office of Graduate Studies and Research

1701 South Broadway • Pittsburg, KS 66762-7540 • 316/235-4223 • FAX 316/235-4219

December 11, 1998

Joseph M. Gassaway  
Special Services and Leadership Studies

Dear Mr. Gassaway

The Committee for the Protection of Human Research Subjects has completed its review of your research proposal entitled "Pre-service teacher's training and its relationship with confidence and attitude levels toward students with disabilities." Your proposal has been approved.

Congratulations on your efforts to conduct research, in addition to your other considerable responsibilities. If I can ever be of help, please do not hesitate to call me at ext. 4222.

Sincerely,

A handwritten signature in cursive script that reads "Oliver D. Hensley".

Oliver D. Hensley, Dean  
Graduate Studies and Research

ODH/hd

Cc: Dr. Nick Henry



APPENDIX F  
IRB ACCEPTANCE FROM  
OKLAHOMA STATE UNIVERSITY

OKLAHOMA STATE UNIVERSITY  
INSTITUTIONAL REVIEW BOARD

Date: September 21, 1999 IRB #: ED-00-163

Proposal Title: "AN INVESTIGATION OF EDUCATION, TEACHING CONFIDENCE, AND GEOGRAPHIC BACKGROUND ON PRESERVICE TEACHERS' ATTITUDES TOWARD STUDENTS WITH DISABILITIES"

Principal Investigator(s): Joseph Gassaway  
Diane Montgomery

Reviewed and Processed as: Exempt

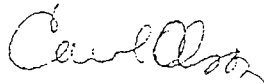
Approval Status Recommended by Reviewer(s): Approved

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Please include the IRB contact person, Sharon Bacher, 203 Whitehurst, (405)744-5700 in the consent form.

Signature:



Carol Olson, Director of University Research Compliance

September 21, 1999

Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Joseph Michael Gassaway

Candidate for the Degree of

Doctor of Philosophy

**Thesis:** AN INVESTIGATION OF LEVELS OF EDUCATIONAL TRAINING IN SPECIAL EDUCATION, TEACHING CONFIDENCE, AND GEOGRAPHIC BACKGROUND ON PRESERVICE TEACHERS' ATTITUDES TOWARD STUDENTS WITH DISABILITIES

**Major Field:** Applied Behavioral Studies

**Biographical:**

**Education:** Graduated from Chickasha High School, Chickasha, Oklahoma in May, 1973; received Bachelor of Science degree in Psychology from Oklahoma State University, Stillwater, Oklahoma in May, 1978; received Master of Science degree in Guidance and Counseling from Central State University, Edmond, Oklahoma in May, 1986; received Educational Specialist degree in School Psychology in 1993. Completed the requirements for the Doctor of Philosophy degree in Special Education Administration at Oklahoma State University in July, 2000.

**Experience:** Employed by Pawhuska Public Schools, Pawhuska, Oklahoma from 1978-80, Claremore Public Schools, Claremore Public Schools, 1980-82; Jones Public Schools, Jones, Oklahoma, 1982-88; Independence USD 446 Schools, Independence, Kansas, 1988-96; Carl Junction R-1 Schools, Carl Junction, Missouri, 1998-2000; and Grandview Consolidated School District #4, Grandview, Missouri, 2000-to present.

**Professional Memberships:** National Association of School Psychologists; Council For Exceptional Children.