

THE RELATIONSHIP BETWEEN SECONDARY GENERAL EDUCATION
TEACHERS SELF-EFFICACY AND ATTITUDES AS THEY RELATE TO
TEACHING LEARNING DISABLED STUDENTS IN THE INCLUSIVE SETTING

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ABSTRACT

The purpose of this study was to examine the relationship between teacher efficacy and attitudes of secondary general education teachers towards teaching learning disabled students in the inclusive classroom setting. An online survey, along with a telephone interview was conducted with secondary teachers as a means to gathering data regarding teacher attitudes and efficacy toward inclusion.

Results from the online survey suggested that secondary teachers have both positive and negative attitudes toward inclusion. These attitudes varied when it came to issues of making accommodations and modifications for disabled students, whether part time or full time in the inclusive classroom setting. Responses to items concerning sufficient/insufficient training to teach disabled students brought about differences in responses from male and female participants. The female respondents were undecided as to whether or not they had sufficient training to teach learning disabled students in the inclusive classroom setting. The female respondents also were undecided as to whether or not more undergraduate classes would have given them more confidence working with learning disabled students in the inclusive classroom.

As for efficacy, making adaptations, and training, female teachers tended to have a greater degree of confidence in teaching disabled students in the regular classroom setting in comparison to the male teachers whose confidence levels were lower than their

female counterparts. The same can be seen with the rural and urban/suburban teacher groups in regards to adaptations and training. Both urban/ suburban teachers tended to project positive attitudes towards making accommodations and modifications for disabled students. They tended to respond in a positive manner when it came to modifying teaching style and adapting the curriculum for disabled students in the inclusive classroom setting.

Results from the telephone interview survey concluded that secondary teachers feel that inclusion works for some disabled students, but not others. Some respondents felt that inclusion is responsible for teachers “dummying down” lessons. The respondents also suggested that they have had positive, as well as, negative experiences with inclusion. The positive experiences included making methodological and curricular changes in teaching styles, employing best teaching practices, and reorienting the way assignments are given. The respondents found these changes to be positive for all students, which in turn, helped to change the mindset that lessons were being “dummied down.” Negative experiences included not having a voice in which students would benefit from the inclusion construct.

This study concluded that inclusion does have its benefits, as well as it flaws, but its success rests on the attitudes of the teachers in the classroom. The study also concluded that a relationship does exist between teacher self-efficacy and teacher attitudes as they relate to teaching learning disabled students in the inclusive setting.

DEDICATION

This dissertation is dedicated to my late parents, Cleveland and Gladys Jackson. It is because of their love and guidance that I have accomplished so many wonderful things in life. I also dedicate this dissertation to my loving family which includes my husband of 27 years, Dwight, my daughter Briana, and my son Phillip. They have always managed to keep me focused and to them I extend all of my love.

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CHAPTER I

Introduction

In 1975, the enactment of The Education for All Handicapped Children (Public Law 94-142) put into law mandates that would forever change the way handicapped students are educated in public schools. Historically, before the passage of 94-142, not all handicapped students had been afforded the same learning opportunities as their non-disabled peers. In past years, the vast majority of disabled students usually received instruction in the resource classroom which was set apart from the other regular classrooms in the building. The only time special needs students socialized with their regular peers was through assemblies and lunch periods. The idea of being mainstreamed into core academic classes was relegated to the disabled students who were capable of functioning in the regular setting with minimal accommodations from the regular education teacher. (Snyder, Garriott, and Aylor, 2001).

The Education for All Handicapped Children (Public Law-94-142), Act eventually gave rise to the Individual with Disabilities Education Act (IDEA) of 1997. The IDEA mandated that all eligible students with handicapping conditions be given equal opportunities for learning commensurate to that of regular students. This meant placing students in the least restrictive environment, which in the past, had been done through “mainstreaming.” The IDEA (1997) legislation strengthened the concept of “least restrictive environment” which guaranteed that disabled students would be educated to the maximum extent appropriate with their regular peers (IDEA, 1997).

In December 2004, President George W. Bush signed into law a reauthorization of IDEA which went into effect during the 2005-2006 school year (Council for Exceptional Children, 2004). The law included changes Congress made that would have an impact on disabled children and youth who were also experiencing homelessness.

Data, as outlined by the United States Department of Education's 23rd Annual Report to Congress on the implementation of IDEA (2001) showed that the number of disabled students being served in the regular classroom setting had risen to 47.4 percent, in 2000, which was almost a quarter more than in the 1980s (United States Department of Education: Office of Special Education Programs, 2001). The data also indicated that disabled students across the nation were receiving instruction in the regular classroom setting 80% or more of the day (United States Department of Education: Office of Special Education Programs, 2001). This increase in the number of disabled students being served in the regular classroom setting is indicative of efforts by individual states to ensure compliance with IDEA and the mandate of providing equal access to learning opportunities for all students (US Department of Education: National Center for Education Statistics, 2002).

Underwood and Mead (1995) defined inclusion as a means of providing disabled students within the mainstream appropriate educational programs which are challenging and geared to their capabilities and needs. Lipty and Gartner (1992) defined inclusion as the provision of specially designed instruction to special needs students in the inclusive classroom used in context with least restrictive environment. This means that disabled

students have to be afforded equal opportunities to participate in core learning activities, taking into consideration the ability and needs of the individual student.

In order to ensure that all students with disabilities are given equal opportunities and to comply with federal mandates, schools across the nation began to integrate the inclusion format in their curriculum design. This format is similar to the historical educational principles of mainstreaming, integration, normalization, deinstitutionalization, and regular education initiative (Southwest Educational Development Laboratory, 1995). These were measures that were similar to the inclusion construct, but not as defined as inclusion is in terms of meeting the academic needs of the disabled student. The primary responsibility for the education of the disabled students in the inclusion format puts the responsibilities on the regular education teacher.

Throughout history, educators have dealt with issues such as multicultural education, school reform, character education, achievement gaps, collaborative networks and state mandated standardized testing. The inclusion construct has added to the everyday classroom pressures felt by secondary educators across the nation (Olson, Chambers, and Hoover, 1997). Inclusion has enabled more secondary general education teachers to teach all levels of students, some of which have learning, as well as, physical disabilities. These same general educators consistently struggle with personal issues concerning their own adequacy to teach disabled students and their beliefs and attitudes towards the practices of inclusion (Scruggs and Mastropieri, 1996).

The inclusion construct enables regular education teachers to focus on the academic, cultural, and social aspects of the disabled child in the regular classroom

(Cook, 2002). Often, regular education teachers have to realign their methodologies and instructional practices to conform to where the disabled student is academically, socially and culturally; thereby, creating positive learner outcomes (Scruggs and Mastropieri, 1996). It is through this ideology that secondary general educators rely on building support and collegiality to ensure for successful inclusion (Jordan and Stanovich, 2001).

IDEA stipulates that schools must provide supportive and high quality intensive development for teachers and paraprofessionals who work with special needs students in order to ensure that they have the necessary skills and knowledge needed to meet developmental goals to the maximum extent possible. In essence, inclusion has helped reform how special needs students are educated in the regular classroom setting. The practice of inclusion has also afforded general educators professional opportunities to develop adequate knowledge, teaching skills, and positive attitudes towards special needs students in their classrooms.

Empirical research on inclusion notes that less confident secondary general educators question their ability to effectively educate disabled students in the regular classroom (Jordan and Stanovich, 1991; Scruggs and Mastropieri, 1996). These same teachers also question why they have to modify content-driven lessons just to meet needs of these students (Olson, et al, 1997). These feeling have given rise to research addressing teacher self-efficacy and teacher attitudes and how they affect the ability of teachers to function in the inclusive classroom (Cook, Tankersley, Cook, and Landrum, 2000). For the secondary educator, inclusion of disabled students at the secondary level

impacts all academic facets of high school life from high-stakes achievement testing to diploma options.

Due to the scarcity of empirical research on inclusion at the secondary level, it is challenging to draw conclusions from the few studies addressing the inclusion construct. Several reviews of studies by Manset and Sammel (1997) have failed to find relevant research on the secondary level that addresses teacher self-efficacy and teacher attitudes. Empirical studies (Mastropieri, and Scruggs, 1997; Scruggs and Mastropieri, 1996) have investigated the effectiveness of inclusion at the secondary level and from this research viable teaching practices and methodologies have been implemented and are being used in successful inclusive classrooms.

Purpose of the Study

The purpose of this study is to examine the relationship between teacher self-efficacy and attitudes of secondary general educators toward inclusion.

Research Questions

The research question for this study is: Is there a relationship between teacher self-efficacy and teacher attitudes towards inclusion? Sub questions that will be examined are: (1) Is this relationship influenced by factors of: geographical, grade taught, gender, and years of experience? (2) How do the attitudes of secondary teachers concerning opinions of inclusion/mainstreaming, adaptations, and training compare with attitudes of elementary school teachers as reported in research?

Significance of the Study

Data, relevant to the attitudes of secondary general education teachers toward inclusion, as they relate to opinions about mainstreaming/inclusion, adaptations, and training will be gathered from this study. The synthesis of these data may serve as an effective step in enabling secondary schools to develop and promote staff development programs for secondary teachers that will help them accommodate all students.

Secondary teachers, according to Reusen, Shoho, and Barker (2001), are the most instrumental in secondary school reform because they are the ones who have to follow through and implement changes in the classroom. With this being noted, these educators may use the data from this study to tailor and revise the secondary curriculum to meet the needs of all students enrolled in core academics at the high school level.

It is also important to note that emphasis on the data concerning teacher attitudes with regards to opinions concerning inclusion/mainstreaming, adaptations, and training relating to successful inclusion practices can be presented to school boards in the hopes of obtaining board funding for staff development. This funding could possibly extend to tuition for college course work needed to help secondary teachers achieve and maintain success in the inclusion setting. Opportunities for collaborative partnerships to form between schools divisions and various colleges and universities are possible as a result of findings from this study.

Definitions

In order to give the reader a comprehensive understanding of the discussion centering on teacher self-efficacy and teacher attitudes, certain words and phrases will be defined in this section.

Gender refers to male or female for this particular study.

Geographic location refers to the type of area a location is determined to be due to factors such as population, land size, and economic growth as defined by the United States Bureau of Statistics. For this particular study, participants were classified as being in a rural or urban/suburban location.

Grade level taught refers to the actual grade levels of secondary schools. These include the grades of 9-12.

Inclusion, as defined by Rogers (1993, p.1), is the commitment to educate each child, to the maximum extent appropriate, in the school and classroom he or she would otherwise attend. Operationally, inclusion means the special education student is enrolled in a regular education class certain percentages of the day. These percentages may range from 3% to 100%, depending on individual student needs.

Learning disabled refers to students who have been found to have a disorder in one or more of the basic psychological processes involved in understanding or using language. This may be in the areas of written or spoken language in which the child has problems in the ability to listen, speak, read, write spell or perform mathematical calculations.

Mainstreaming as defined by Bender, Vail and Scott (1995) is the partial integration of special needs students into the regular classroom setting for certain periods of the day. This integration often takes into account the individual needs of the student, ability level, and characteristics of the disability. Operationally, for the purpose of this study, mainstreaming refers to the partial integration of disabled students in the regular classroom setting.

Teacher attitude is defined as predilections toward behavior. Operationally, for the purpose of this study, teacher attitudes will be measured by The Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC), an instrument, developed by Cochran 1997, used to measure attitudes of teachers toward inclusion. The STATIC will specifically measure the domains of opinions concerning inclusion and mainstreaming, adaptations, and training.

Teacher self-efficacy as defined by Bandura (1977) is defined as a cognitive mechanism that regulates behavior. It develops and grows as the individual teacher matures in personal confidence knowing the competencies necessary to achieve desired outcomes have been mastered. Self-efficacy in this survey will be measured using the Teachers' Sense of Efficacy Scale (TES) which deals with the efficacy of teachers to make decisions, influence school resources, analyze self-efficacy, analyze disciplinary self-efficacy, and to enlist parental environment.

Years of experience refers to the amount of experience a teacher has in the classroom. The levels extend from 0 years to 16 + for this particular study.

Limitations of the Study

When conducting research on attitudes and efficacy there are bound to be some factors that limit the generalizability of the research. This study focuses on attitudes of secondary general educators in the state of Virginia. The information obtained may not represent how secondary general educators from other states view inclusion.

The number of secondary schools surveyed in Virginia (30%) have differing degrees of implementation of inclusion which will affect the variances in responses to the survey questions. Different internal factors for the various secondary schools will also yield varying results.

Limitations concerning responses from secondary educators may include the selection process used to choose the participants to be used in the survey, geographical locations of the participants, and the assumption that disabled students in the inclusive setting have been placed appropriately and therefore are receiving appropriate instruction in the regular classroom setting. The responses from the secondary teachers participating in this study will be influenced by the aforementioned factors. Also, the various teaching experiences that secondary teachers have had with inclusion will impact responses that will vary from location to location, thereby, making generalizability difficult.

Summary of the Study

This research study is divided into five parts. Chapter 1 includes a description of the following; (a) the problem and its context, (b) the purpose of the study, (c) research questions that will be answered by the study, (d) significance of the study, (e) definitions, and (g) limitations of the study.

Chapter II consists of a literature review of studies relative to attitudes of secondary general educators toward inclusion. This chapter begins with an overview of empirical research related to mainstreaming/inclusion at both the elementary and secondary level. Subsequently, there is a review of research and literature as it relates to factors that may impact teacher attitudes such as teacher efficacy, opinions about mainstreaming/inclusion, adaptations, and training. As noted in the literature, the terms mainstreaming and inclusion are often used interchangeably. For the purpose of this study, inclusion will be used when referring to the integration of learning disabled students in the inclusive classroom.

Chapter III is a discussion of the methodology used in this study. The chapter will have a description of the population and how the sample will be selected. The chapter will also have a description of the instrument used to gather data. Finally, the chapter will have a description of data analysis, data collection procedures, method of data analysis, and an overview of the research.

Chapter IV is a presentation of the findings obtained from surveys dealing with teacher attitudes and teacher self-efficacy. This section also contains a description of the participants and a narrative summary of the factors that may impact attitudes of secondary general educators toward inclusion based on the data collected from the surveys.

Finally, Chapter V provides a summary of the evidence presented to reveal factors that may impact the attitudes of secondary general education teachers toward inclusion. This chapter also includes conclusions derived from the study, implications for further

research, and what they mean in regards to secondary teacher attitudes towards disabled students in the inclusive classroom setting. Recommendations and implications from this study can be used to further the research on this topic.

CHAPTER II

Literature Review

Teacher Attitudes Toward Mainstreaming/Inclusion: A Research Synthesis

Jobe, Rust, and Brissie (1996), through empirical research on teacher attitudes and inclusion, concluded that teacher attitude plays a vital role in the success of any program in education, especially the practice of inclusion. Jobe, et al (1996) noted that few studies have been done to judge how teachers truly feel about inclusion. The attitudes and beliefs of general education teachers toward inclusive practices may influence school learning environments and equal learning opportunities for students with disabilities (Scruggs and Mastropieri, 1996). The vast majority of research on teacher attitudes has indicated that many general education teachers philosophically support inclusion, but many have concerns about their innate ability (self-efficacy) to implement these programs successfully (Beull, Hallam, Gamel-McCormick and Scheer, 1999; Van Reusen, et al, 2000).

Scruggs and Mastropieri (1996) conducted a research synthesis of empirical studies concerning the attitudes of educators toward inclusion. The synthesis of literature covered over 30 years of research on teacher attitudes and the inclusion construct. The intent of the synthesis was to provide important information about where the field of education is headed in respect to the educational policy.

The data set, which focused on teacher attitudes toward mainstreaming (inclusion), included 10, 560 teachers, along with other school personnel, from all geographical locations of the United States and parts of New South Wales, Australia; and

Montreal, Canada. These educators had been surveyed to gather their attitudes about relevant topics relating to inclusion. Topics covered the common issues such as adequacy of training and adequacy of resources, support, etc.

Participants, who included demographic information as part of their responses, totaled 1,173 special education teachers and 6,459 general education teachers. Years of teaching experience ranged from 0-31. Educational backgrounds revealed that 987 respondents had bachelor's degrees, 741 respondents had master's degrees, 2 respondents had educational specialist's degrees and one respondent had a doctorate. Some respondents failed to address the demographic part of the surveys.

Return rates for the surveys ranged from 48% to 95% with a mean average of 72% and a standard deviation of 16% for the eleven survey reports used to generate this data. Reliability of the instrument used revealed between .52 and .92 for a mean of .79 and a standard deviation of .12. The reliability was based on ten reports.

The findings from the study revealed that 10, 560 teachers had been surveyed through 28 different survey reports. The wide variety in surveys, procedures, time and geographical locations surveyed apparently had no negative effect on responses for the different items. The majority of teachers surveyed believed in mainstreaming/inclusion construct, while a slight majority was only willing to implement the construct in their classrooms. An over whelming minority believed that disabled students would be too disruptive for the regular classroom and would demand too much attention, thereby taking away for the other students. Overall, support for inclusion correlated with the degree of inclusion implement and the severity of the student's disability.

Another relevant finding in the research concluded that one fourth to one third of educators surveyed agreed that they had sufficient time training, material/personnel resources to have a successful inclusion program. Some of the respondents tended to become more positive in their attitudes after they had received necessary training needed to teach in the inclusive classroom setting. Scruggs and Mastropieri (1996) noted that educators should be cautious with these findings because, as with any research, studies with inclusion and teacher attitude maybe inconsistent.

Through a synthesis of research (Scruggs and Mastropieri, 1996), noted that after 30 years, teacher attitudes toward inclusion had changed very little. The findings showed that about half of educators thought that inclusion was beneficial to students. The amount of time, the disabled students spent in the regular classroom tended to reduce these percentages. Scruggs and Mastropieri (1997) concluded that many educators saw inclusion as a valuable and beneficial practice. They cautioned that positive teacher attitudes are important for inclusion to work at any level.

Teacher Self- Efficacy and Teacher Attitudes Toward Mainstreaming/Inclusion

Teacher self-efficacy refers to the belief that one can affect student outcomes in a positive manner (Brownell and Pajares, 1999). Bandura (1977) defined teacher self-efficacy as a cognitive mechanism that regulates behavior. It develops and grows as the individual teacher matures in personal confidence knowing he or she has mastered the competencies necessary to achieve desired outcomes (Ashton and Webb, 1986).

Empirical research conducted by Brownell and Pajares (1999), noted that the overall thoughts and feelings of teachers, as well as actions, play a pivotal role in addressing

student outcomes. This ideology is related to Bandura's (1974) social cognitive theory (SCT) which states that self efficacy evolves from past achievements, from successes and failures, from persuasions of others and from one's own psychological state.

In research conducted by Brownell and Pajares (1999); and Buell, Hallam, Gamel-McCormick, and Scheer, (1999), the assertion is clear that teacher self-efficacy refers to the beliefs of teachers to positively affect student outcomes in the inclusive setting. Teacher expectations, beliefs and attitudes and how they are perceived by the students can have a dramatic effect on how students respond in a given learning environment (Jordan, Lindsay, and Stanovich, 1997).

Buell, Hallam, Gamel-McCormick, and Scheer (1999), did research that concluded that teacher attitudes and teacher self-efficacy certainly impact the disabled students in the regular classroom setting. Their goal was to examine factors that contributed to the ability of secondary teachers to meet the needs of disabled students in the inclusive classroom. In order to do this, the study focused on teacher attitudes and beliefs as they related to the ability of secondary teachers to get through to difficult students, the ability to successfully educate disabled students, training needs, and adapting materials just to name a few.

The instrument used to conduct this study was designed and developed in a Southwestern state's Exceptional Students' Team and the Department of Education. The instrument was a 25-item like Likert-type scale with yes and no and open ended questions. Questions addressed teacher confidence working with special needs students in the inclusive setting along with teacher in-service training needs regarding inclusive

education. Teacher attitudes and perceptions of needed support were also addressed in the study. Participants completing the survey included four percent of the state's elementary and secondary general educators and six percent of the state's special educators for a total of 289 participants.

The surveys returned generated a 53% response rate. Approximately sixteen surveys (27%) had to be discarded because of the failure to denote whether or not the participant was a general or special educator. Breaking down the response rate for completed forms, there was 70% participation for general educators with a 50% response rate and 30% participation and 82% response rate for special educators. The years of teaching experience for the responders found the general educators to have an average of 15 years as compared to an average of 13 years for special educators. This study indicated that those special educators participating tended to have a longer working relationship with younger children more so than regular educators. The state's average for such statistics indicates that this is consistent with state numbers. Twenty-five percent of the teachers at the elementary level were special educators while only 17% of the teachers at the secondary level were special educators. Population over representation was evident in this study due to the large percentage of special educators participating.

A multivariate analysis of variance (MANOVA) was conducted to gather information that would address differences in responses from both groups concerning attitudes towards inclusion. The study also addressed the topic of training received by general education teachers in preparation for teaching in the inclusive classroom.

Questions in the survey included success in working with disabled students, understanding inclusion, the ability to motivate and get through to difficult students.

In addressing teacher self-efficacy, the data indicated that the variables of understanding inclusion and the ability to get through to difficult students accounted for the variance. Special educators in both cases gave a higher rating to their ability to motivate and understand special needs students more so than the general educators. General educators in this study tended to feel like they had the ability to effectively instruct special needs students.

In order to test for training needed to teach in the inclusive classroom, a multivariate analysis of variance was done comparing responses from general and special educators. A significant difference was found in expressed training needs of special and general educators. Univariate analysis indicated that regular educators felt a need for training in program modification, assessments, behavior management, developing and implementing IEPs, and curriculum design.

Teacher attitudes and self-efficacy as it relates to the inclusive setting was tested in this study. The purpose was to explore the attitudes and feelings of efficacy of both general and special educators and to identify training needed to be successful in the inclusive classroom. Teacher attitudes and beliefs about confidence levels and training needed made up a large portion of the study.

As noted by the study and others (Soodak and Podell, 1993), the confidence of secondary general education teachers in their own ability to work with special needs students can have an impact on student outcomes. Again, Bandura's (1974) social

cognitive theory applied to this study in that it addressed the idea of self-efficacy and its relationship to attitudes and the feeling of impacting others through various beliefs and actions. The study also revealed that a teacher's sense of efficacy is influenced by needs that are personal and contextual and is more than just skill development.

Limitations to this study include the fact that special educators were overrepresented in such a small sample population. In order to do an appropriate MANOVA, an equivalent number of special educators as well as regular educators had to be sampled. The attitudes of the participants from one state may not be representative of the attitudes of throughout the United States.

In another study addressing attitudes and efficacy, Hamill and Dever (1998) noted that at the secondary level, teachers have to provide instruction that addresses the general education curriculum, along with including instruction that addresses transition into adulthood. This, in turn, translated into making the curriculum relevant to meet the needs of disabled students. Hamill and Dever (1998) noted that secondary teachers may have felt (self-efficacy) that they did not have the professional training to successfully teach in the inclusive classroom setting. In addition, these same general education teachers felt like they were with some colleagues who most likely had attitudes, beliefs, and training experiences with inclusion that were extremely different from their experiences, which was a cause of concern for them. These teachers were forced to question their efficacy in being able to perform in the inclusive classroom setting.

To conduct their study, Hamill and Dever (1998) selected a cohort of six participants who were enrolled in a semester long graduate course in special education

that met once a week for three hours. The course focused on secondary programs and curriculum for students with mild disabilities. All of the participants were practicing teachers, both special educators and general educators, who volunteered to take part in the study. All participants in the study had to be educators who were currently teaching disabled students in the inclusive classroom setting. The participants included four female high school teachers and two itinerant female teaches. Two of the teachers were secondary general educators and the other four were special education teachers.

The focus of the research required methods that would allow teacher attitudes to emerge from the data. From this data categories of responses were derived from selected words or phrases that offered a detail and insightful look at the attitudes and beliefs of these educators held toward inclusion. Data was collected through journals kept by the teachers. The journals recorded daily experiences in the inclusive classroom setting. The teachers wrote about their abilities and challenges faced in performing instructional duties.

Once the journals were collected, they were entered into text files and analyzed using Tally, a software program designed specifically to manipulate qualitative data. By using Talley, the researchers were able to highlight certain words and/or phrases that enabled the researcher to identify categories and to organize any relevant connections between categories and among the participants. Data from the journal was clustered into data chunks according to thematic identification. The themes that emerged from the chunks included teachers' actions and attitudes about inclusion; teacher methods; instructional materials; influences of home life; interactions with administrators; and

professional cooperation and support. These themes also became the final categories used to analyze the data and to identify which themes related to positive and negative incidents.

Hamill and Dever (1998) found that although the teachers expressed confidence about their instructional capabilities, they appeared to have mixed feelings about their ability to make adaptations to meet the specific needs of disabled students in the regular classroom setting. Data from the instructional theme showed that the teachers felt more confident and had better attitudes when it came to many of materials to be used in the classroom, but felt less confident when they had to make adaptations to these materials. They questioned their ability to adapt materials that were appropriate for specific needs of the various students. The teachers were positive about having to make adaptations with some of the materials that would expose the disabled students to real life experiences, such as hunting, reading a newspaper and automobile advertisements. One teacher was enthusiastic about having students to write their own books, but was hesitant when it came to the amount of work required to produce the amount of materials needed to use in an inclusive classroom setting.

When it came to the themes involving influence of home life; interactions with administrators; and professional cooperation and support, several teachers talked about having lack of control and a feeling helplessness. In situations where the aforementioned themes were prevalent, the teachers expressed negative feelings and dissatisfaction as to how they would accomplish their responsibilities in the inclusive classroom. Their sense of efficacy was diminished when they had to confront home situations that filtered into

the classroom setting. They had negative attitudes and feelings of helplessness when they felt a lack of collegial and /or administrative support. These situations often led to the teachers having negative responses concerning inclusion at the secondary level.

Several negative attitudes and beliefs surfaced from this study. Teachers felt that their success as professionals was aligned with a sense of empowerment and self-efficacy. When they found themselves in situations which were overbearing, the teachers tended to have a low sense of self-efficacy in being able to be effective in the inclusive classroom. Attitudes of the teachers tended to change when they were confronted by extraneous situations in which they had little or no control. The overall consensus was that their ability to teach disabled students was good, but confidence was lacking in the inclusive setting due to factors such as home life, administrative support, instructional materials, and collegiality.

Similarly, Jordan and Stanovich (2001) completed a study on classroom teacher interactions with students who are exceptional, at risk, and typically achieving in the inclusive setting. The purpose of the study was to measure teacher attitudes about their primary responsibilities of working with students identified as special needs and students who were at risk of academic failure. The relationship between instructional interaction patterns when working with two-student groups (exceptional and/or at risk and typically achieving), student self- concepts, and instructional interactions between individual teachers and students were measured.

The participants in the study included nine general education teachers (5 female and 4 male third grade teachers from a semi-urban mid northern school system in Ontario,

Canada) and 48 of their children. It should be noted that the town where the study took place is small with largely white families of Anglo-European from a low to moderate socioeconomic background. This small study was an outtake observational phase of an ongoing study that already included 26 teachers. The participants' teaching experiences had an average of 17 years with none of the teachers having received training in special education (Jordan and Stanovich, 2001).

Teachers participating in the study nominated students who were regarded as exceptional according to test constructs or as being at risk for academic failure and placed in Group 1. For Group II, teachers nominated six students who were deemed as having average ability levels in the classroom. From those six, three were randomly selected for observation, making sure to keep in proportion with the genders of the exceptional and at-risk group.

Jordan and Stanovich (2001) used *The Pathognomonic-Interventionsit (PATH/INT) Scale of Teacher Beliefs* to conduct the research. This is a Likert-type five point scale with 20 items. The topics of referral and assessment, programming, review, communication with staff, and communication with parents targeted the pathognomonic-interventionist perspectives of teachers participating in the study. The PATH/INT employs an interview technique designed to delve into teacher attitudes about their true feelings concerning what their responsibilities are when it comes to working with special needs students. The model allowed for the interviews to be private and confidential. Teachers had to compare their interactions with students who were exceptional and/or at risk with their interactions with students of average ability. By

using this format, the interviewer was able to ask questions that generated follow-up questions that generated responses from teachers concerning their true attitudes and beliefs, and teaching practices utilized in the classroom.

The transcripts were coded and classified first into topics that were academic and nonacademic. Under the academic category, three levels of cognitive extension were identified. These included comprehension monitoring (CM), partial cognitive extension (CE-P), and full cognitive extension (CE-F). All of the nonacademic interactions were categorized by whether teachers initiated questions pertaining to personal issues, classroom management, or other organizational matters.

Comprehensive monitoring and cognitive extensions situations were noted as interactions between students and teachers took place in the classroom with the teachers checking for understanding of concepts. In comprehension monitoring, the teachers accepted minimum responses of understanding concepts from the students and did not go beyond satisfactory student response while in cognitive extension-partial and full, efforts were made by the teachers to extend the conversation beyond satisfactory student responses. Cognitive extension allowed the teachers to use student responses as a means of delving deeper into concepts being taught.

Due to the nature of such a small sample, all nine participants were grouped on the basis of their PATH/INT scores. The scores ranged from 1.97 to 4.88 with scores less than 2.9 being labeled as PATH and those greater than 3.9 were labeled INT Interventionist). Scores of 3.9 were termed MID (mid-range). The PATH group had three teachers with a mean of 2.34 while the INT group had three teachers with a mean of 4.39.

When addressing teacher characteristics, the PATH teachers' proportions of interactions with students of both groups were higher, but only on non-academic topics as compared to academic topics. The INT group scored lower than PATH teachers when it came to teacher interactions. PATH teachers tended to interact more using comprehension monitoring and partial extension and only a few instances of full cognitive extension (Jordan and Stanovich, 2001). MID teachers tended to initiate and conduct more interactions overall of the three groups.

Other findings suggested that teachers who held INT beliefs took part in more individualized instruction than the other two groups (PATH and MID). The INT teachers tended to view themselves as instrumental in making sure the special needs students received the appropriate amount of instruction to ensure some degree of student success. Students who were special needs were viewed by PATH and MID teachers as needing to have instruction from teachers who were specially trained to instruct them. They did not feel as if they should be burdened with the responsibility of having to work with exceptional/at risk students because it only took away time from the other typically achieving students in the classroom. The most important conclusion from this study was that teachers with excellent classroom management and time management skills and training tended to have a heightened sense of efficacy and beliefs. These beliefs enabled them to spend more time interacting with their students in ways that are cognitive in nature. This conclusion relates back to the type of training the teachers may have received in preparation for inclusion.

A second important conclusion from this study indicated that attitudes relating to teacher beliefs, teacher training and efficacy appear to have a relationship with how general education teachers attempt to engage students who are identified as special needs. This finding reiterated the notion that teachers with positive attitudes, a strong sense of self-efficacy, along with the proper training, have the skills to be effective in the inclusive setting (Scruggs and Mastropieri, 1996; Mastropieri and Scruggs, 1997).

When examining teacher interactions and attitudes between teachers and students in this particular study, it was clear that more interactions were evidenced with the students not deemed as special needs or at risk of academic failure. This led back to the theory that there are deeper more important constructs that relate to a teacher's interactions in the classroom more so than observable behaviors (Bandura, 1986).

(Jordan and Stanovich, 2001), through empirical research, examined the relationship between teacher beliefs and their presumed roles in the classroom. They compared the differential effect of the identified variables on both groups making sure to explore the relationship between factors that had been reported in the previous study.

This study also indicated that the success of exceptional students in the regular classroom is influenced by teacher beliefs and attitudes, teaching practices, teacher training received and the degree of teacher self-efficacy. In essence, the final conclusion from the study, surmised that teachers have to have a sense that it is possible to produce a classroom environment that will be conducive to learning for all students who require more than just what is deemed to be acceptable (Bandura, 1993; Soodak, et al, 1998). In order to do this, teacher preparation with emphasis on teaching the special needs student

in the regular classroom must be a major component of professional training for general educators in the inclusive classroom setting.

The limitation to this study was the small sample size that may have yielded results atypical of teachers in a much larger setting. These results applied only to this particular population thus affecting the reliability of obtaining similar results if the study were to be repeated in different setting.

Teacher Attitudes and Adaptations

According to Olson, Chalmers, and Hoover (1997) and Kavale and Forness (2000), secondary educators often differ on their generic attitude toward inclusion and making necessary adaptations. Many perceive making needed adaptations as barriers to inclusion, while others accept responsibility for disabled students in their classrooms. Olson et al, (1997) also noted that the academic success of disabled students in the regular classroom is related to the extent teachers are willing to make necessary adaptations for these students (Lago-Delello, 1998).

McIntosh, Vaughn, Shay, Schumm, Haager, and Lee (1993) completed a study to examine how behaviors of general education teachers toward disabled students differed in comparison to wards non –disabled students. The main focus of this study was to examine how general education teachers made adaptations for disabled students in the regular classroom.

The participants in the study included teachers and students from a large southeastern school district. The schools selected to participate were schools that represented the ethnic composition of the district as a whole. This broke down to 46%

Hispanic, 33% Black, and 22% White. As for teachers there was a breakdown of 60 general education teachers representing core academics in grades 3-12. Twenty teachers from each level (elementary, middle, and high) participated in the study. Students participating in the study were randomly selected from classrooms where there were more than one disabled student enrolled.

In doing the study, the researchers could not find an instrument that specifically included teacher and student behaviors relative to adaptations and accommodations in the classroom. McIntosh et al (1993) devised the Classroom Climate Scale (CCS) to measure teacher and student behavior in inclusive classrooms. There were 21 items include in the scale covering the areas of: teacher- initiated behaviors (9 items), student-initiated behaviors (5 items), student participation and interaction (3 items), and overall classroom climate (4 items). Items for the first three components were rated on a 5 point Likert-type scale. The classroom climate items were in a yes/no format.

The items were developed over a two week period that included three phases. Phase I consisted of reviewing the literature and scale development. Items were taken from the Teacher Assessment and Development system and from a district wide survey/questionnaire. Phase I items were developed to represent teacher planning, subject matter and instruction, teacher-student relationships, and assessment techniques.

Phase II of the instrument development process, involved refining parts of Phase I. Items that presented problems and had lower interreliability were revised or dropped from the draft. A general checklist was completed to check for clarity, appropriateness, ambiguity, and bias.

Phase III focused on the enhancement of the validity of the instrument. There was extensive field testing to check for additional clarification of items. Content validity was enhanced by writing behavioral descriptors (performance indicators) for each item. The performance indicators were tested in classroom settings to gauge their effectiveness in recording desired behaviors.

Pilot testing was performed in a university classroom containing 24 teachers enrolled in an education course. Coding for the CSS was done using video scenarios that had been previously taped. For the final students' observation a Cronbach's alpha of .97 was obtained. Information from the pilot training was used to make final adaptations to the CCS. One ambiguous item was deleted and one ambiguous item was rewritten with added information to the performance indicators.

To prepare for the collection of data, all observers participating in the study were given six hours of training on the CCS scale. Detailed information on the use of performance indicators and methods for controlling observer bias was stressed throughout the training. In order to continue participating in the study, observers had to obtain an interrater agreement of higher than .85 on Cronbach's alpha on two videotaped classroom scenarios that had not been previously viewed.

The observations of the selected classrooms were conducted during the spring semester of the school year. Each classroom participating in the study was observed on three separate occasions. If one of the disabled students selected to be in the study was absent, the observation was conducted the following day. Observations lasted 50 minutes and were done in either the science or social studies class. The observers rated each item

on the CSS separately for the disabled and non-disabled students participating in the study. Observers coming in to the classroom were introduced as a student or researcher from the university who wanted to observe how teachers taught.

For this study, there were two types of students involved. There were the disabled students and the non-disabled students. Observations were conducted for each type of student addressing research questions of: (1) Do teacher-initiated behaviors in general education classrooms differ for disabled students when compared to non-disabled students in the classroom, (2) Are the behaviors initiated by disabled student different from those of non-disabled students in the classroom, and (3) Are interactions between students, between students and teachers, and between student and classroom activities different for disabled when compared to non-disabled students in the same classrooms?

Findings from the study suggest that disabled students were treated much the same as the non-disabled students. Disabled students appeared to be accepted by their teachers and were treated fairly and impartially. The same activities and class work was given to all students, especially at the middle and secondary level. This, in itself, raised some concern because the disabled students needed adaptations and/or modifications in to effectively complete the assignment.

The study found that there were few adaptations being made and little evidence of differentiation. Because of this, the disabled students were often not engaged in the learning process as much as the non-disabled students. This finding was rampant across all grade levels. Often, disabled students had to seek help from the teachers, but they did

not volunteer to answer questions. Their participation rate in teacher-directed activities was lower than non-disabled students, as well as, their interaction with teachers.

Considering the teaching approach used in the social studies and science classes, quite often the activities were whole-class activities with little small group work or student pairing. The findings showed that while teachers monitored the class during the activities, they seldom if at all checked on the disabled students. Teachers did not repeat directions or call on students to make sure they were performing the activity as they should. The disabled students were slow to ask questions or request assistance in comparison to the non-disabled students.

Findings from this study share a relationship with findings from a study by (Baker and Zigmond, 1990) that found teachers were not willing to spend more time making adaptations for disabled students in the regular classroom setting. Baker and Zigmond (1990) also noted that teachers often stressed quiet and orderliness while using large group instruction while also implementing teaching practices that called for little or no differentiation of instruction. Similarly, the Ysseldyke, Thurlow, Wotruba, and Nania (1990) study along with Schumm and Vaughn (1999) found that teachers were least willing to make adaptations in work that required long range planning, individualized instruction, and grading of materials. These same educators were also less inclined to adopt peer tutoring, cooperative learning and classroom volunteers as possible adaptations to be implemented in the classroom (Ferris, 1996).

Findings from this research suggest that instruction in the observed classes did not meet the needs of the disabled students. There was limited checking for understanding

and very few opportunities where teachers differentiated or adapted instruction to meet the needs of the disabled students. The disabled students took on more of a passive learner role in the classroom. They often did not volunteer in class or did not seek out the teacher's assistance when completing whole class activities. Due to the fact that little adaptations were made, often the disabled students were not able to discuss designated topics or to evidence that they had a full grasp of the concepts presented.

Accordingly, Hover and Yeager (2003) conducted a study on teacher attitudes and making adaptation for disabled students in the regular classroom. This study along with studies by Schumm and Vaughn (1993) and Zigmond and Baker (1995) questioned whether or not disabled students can be successful in the regular classroom with adaptations be made. Hover and Year (2003) noted that disabled students in the regular classroom require meaningful curricular and instructional adaptations and accommodations in order to be successful. It is suggested that the success of disabled students requires teachers to differentiate curriculum, model learning processes, and present materials in multiple ways. To do this, teachers have to plan and establish goals for the varied abilities in the classroom.

To collect data for this study, Hover and Yeager (2003) developed an interview protocol of 11 questions addressing the following areas: general background information, instructional approaches and curriculum development, teachers' views about disabled students, adaptations made, and contextual supports. Participants in the study included 12 volunteers. There were seven high school history teachers and 5 middle school history teachers. All twelve teachers were employed in high schools located in Central Florida.

The interviews took place during the spring of 2000 in classrooms during the teachers' planning periods. Each interview lasted approximately one hour each. The sessions were audio taped and transcribed into 72 pages of data. All 12 interviews were analyzed by the researchers during three phases. Phase I had the researcher who conducted the interview to read through the interview looking for patterns and relationships. Codes and domains were developed during this phase. Phase II involved having the codes member checked by a second researcher who put her details in research memo. During the third and final phase, the researchers met to compare notes and draw conclusions from the data gathered.

There were four major themes to emerge from the data. These included teachers' instructional approaches, views toward disabled students in the regular classroom, adaptations made, and contextual supports. For the purpose of this discussion, adaptations made will be solely addressed.

Findings showed that middle and secondary history teacher made adaptations that included providing extra copies of materials, holding conferences, student pairing, and developing individualized educational plan (IEP) recommendations. One teacher stated that often she went beyond what was expected of her as far as making adaptations. Two teachers expressed resistance to making adaptations noting that they did not feel comfortable making things easy for the disabled students just so they could experience academic success. When informed that state law mandates that adaptations and accommodations be made in accordance with the student's IEP, the teacher gestured that adaptations were 'insane'.

Frustration in having to make adaptations was evidenced by one teacher who felt that it was too difficult to accommodate all types of disabled students in the classroom. It was noted that trying to make accommodations for all levels and types of disabilities in the classroom could drive a teacher insane. This teacher was willing to make as many accommodations as humanly possible, given the make up of her classes.

Four secondary teachers expressed that adaptations were only made if students requested them. They admitted to knowing about the legal paper work (IEP) and suggested that these students be given extra help through resource teachers. Their colleagues sought a different approach to making adaptations. They extended deadlines, provided extra test time, and provided outlines for notes. These teachers felt it was their responsibility to comply with the law while making learning pleasant for the disabled students in their classes.

Teacher Self-Efficacy, Attitudes and Training

The most recurring theme in empirical studies involving inclusion is lack of professional training and development to work with disabled students in the inclusive classroom setting (Scruggs and Mastropieri, 1996). Van Reusen, Shoho, and Barker (2000) postulated that attitudes and beliefs of general education teachers toward inclusion are learned and appear to be influenced by the amount of training and knowledge the individual teacher has in regards to teaching disabled students. Some studies have concluded that positive teacher attitudes and heightened self-efficacy, along with proper training is directly related to general educators being successful in the inclusive classroom (Salend, 1994; Schumm and Vaughn, 1995).

Van Reusen, Shoho and Barker (2000) did a study to investigate how the attitudes of high school teachers towards inclusion were affected by the four domains of teacher preparation, academic climate, academic content/teacher effectiveness, and social adjustment. For the purpose of this review, the discussion will focus on the domain of teacher training and how it related to general educators feelings concerning inclusion.

The study took place in San Antonio, Texas in a large suburban high school. The school's diverse population included 3,263 students in grades 9-12. The special education population, with disabilities ranging form mild to severe, accounted for 10% of the student body. The teaching staff included 12 full time special educators and one full time coordinator who also served as the program's administrator. Services for instructing the special education students ran the continuum from full inclusion to vocational training. There were no self-contained programs at the school.

In order to conduct the study 125 teachers out of 192 filled out a two part survey designed to measure teacher attitudes toward inclusion. The first part of the survey looked at demographic and background information such as gender, teaching experience, and teacher training preparation. The second part of the survey included a series of 20 items that had statements such as "I can be effective with the students with disabilities assigned to my classes (Van Reusen et al, 2000). All 20 statements were on a Likert-type scale that allowed the participant to select the degree of intensity from strongly agree to strongly disagree. The researchers intentionally worded ten of items positively and ten negatively.

There was a significant difference between the overall attitudinal responses of teachers with high levels of special education training or experiences compared to those who had minimal training or experiences. There were also significant differences between the domains of academic/content/teacher effectiveness and teacher preparation, for teachers who reported a high level of training as compared to teachers with low levels of training. The domain scores on the level of teacher training revealed that teachers with adequate to high levels of training perceived their ability to effectively teach special needs students more positively than teachers with minimum training. Their attitudes and heightened sense of self-efficacy were seen as products of having the proper training for inclusion.

The results of this study supported similar findings in a synthesis of studies on teacher attitudes toward inclusion by Scruggs and Mastropieri (1996) which concluded that positive attitudes of general educators toward inclusion are related to levels of training, knowledge, self-efficacy, and experience working with disabled students. The educators with the highest levels of training tended to gather the most positive results in the domains. This supported a similar finding by Scruggs and Mastropieri (1996) that concluded that the amount of training or experience general educators had with disabled students appeared to be a contributing factor that related to whether teachers held positive or negative attitudes inclusion.

A large number of empirical studies conducted by researchers have supported the theory that teacher beliefs and attitudes are two of the dominant factors that predict and determine teaching practices within the classroom (Scruggs and Mastropieri, 1996).

Soodak et al (1998) conducted a study to predict responses of general educators to inclusion. Surveys were given to the participants enrolled in graduate education classes at the universities conducting the research and to their colleagues and other teachers working in an inclusive setting. A total of 530 general educators received the surveys, but only 194 returned them. Of the 194 returned, only 188 had completed the survey as required. This generated a return rate of 35%, which is a small sample. All together 188 general educators were surveyed regarding their experiences with special needs students in the regular classroom. Years of experience ranged from 1 to 29 years of experience which yielded a mean of 9.3 years with a S.D of 8.3. The majority of the participants (85.1%) were female and most (71.3%) taught in the elementary setting. Only 18.1% percent taught in the middle school and 10.6 were involved in a high school setting. As for race, 84.6 % were Caucasian, 64.4% African-American, 5.3 % Hispanic, and 2.7% Asian. A small percentage (1%) chose not to identify their race or ethnic background. Being the survey was conducted in a metropolitan area, 80.9 % were urban teachers with 19.1% suburban. The majority (85.6%) taught in public schools while the remaining 14.4% taught in the private sector.

The research design was meta-analysis conducted through a cross-sectional survey approach. Each participant in the study had to fill out four different instruments that included an inclusion survey, a teacher efficacy scale, a differentiated teaching survey, and a school climate survey. The idea of the study was to gather information regarding teacher attitudes towards inclusion in the hopes of exploring teacher self-efficacy, teacher attitudes, and teacher training and how they relate with a teacher's

acceptance of having special needs students in the regular classroom (Soodak, et al, 1998). Each of the participants had to complete the following surveys in the survey packet: The Response to Inclusion Survey; Teacher Efficacy Scale; Differentiated Teaching Survey and School Climate Survey.

Using Cattell's (1966) scree test (factor analysis) and inspection of factor loadings, Soodak, et al, (1998) did a factor analysis of the semantic scale measuring the respondents' responses to inclusion. The researchers retained a two-factor solution after having completed the factor loadings which accounted for a 52.9% variance in responses of the participants. The result showed the two factors to be uncorrelated with an $r = -.05$; therefore the researchers had to select an orthogonal varimax rotation as the solution. The chosen factors hostility/receptivity and anxiety/calmness were selected.

Hostility/receptivity included the adjective pairs of pleased/displeased, accepting/opposing, angry/not angry, and optimistic/pessimistic. Anxiety/calmness included the adjective pairs of anxious/relaxed, nervous/calm, and scared/fearless. Soodak, et al (1998) used three methods to determine the reliability of both factors selected. The first method involved the test-retest method, whereby, test-retest reliability was computed using the same 42 educators noted in the determination of the other scales' reliability. The coefficients for both scales were .87 and .77, respectively. The second method used to determine reliability involved the split-half method and the responses of all 188 participants which yielded coefficients of .91 and .86 respectively. For the final reliability check, the researchers use Cronbach's alpha for coefficients of .92 and .87.

Soodak, et al (1998) used regression analysis on each of the two factors making each a dependent variable. The computed scores were derived from weighted sums of responses to the survey items. The significant interactions between hostility/receptivity accounted for 43.6 % of the variance in teacher responses to the hostility/receptivity scale. The researchers also found a correlation between teaching efficacy and the use of differentiated instruction as it related to teacher hostility toward inclusion. It was concluded that when teacher self-efficacy was low ($M = .25$, $SD = .93$), teaching practices had no bearing on hostility toward inclusion whereas when efficacy was high ($M = -.47$, $SD = .82$), teachers were less hostile and had better attitudes.

Soodak, et al (1998) concluded through their findings that the use of differentiated teaching techniques correlated with the number of years of teaching experience and teacher training. A final conclusion showed that teachers with a low sense of self-efficacy, along with negative attitudes towards inclusion and limited collaboration and teacher training to teach in the inclusive classroom, were more hostile than teachers who had more collaboration time with colleagues, more training and experience along with a heightened sense of self-efficacy.

The Soodak, et al (1998) study provided a means to understanding teachers' attitudes toward inclusion by identifying teacher self-efficacy, teacher attitudes, and teacher training as some of the tenets that help determine how accepting general education teachers are to having special needs students in the regular classroom. The research data showed that teacher attitudes and beliefs, self-efficacy, and training have a relationship to teachers' feeling about inclusion. Teachers in the hostility/receptive realm

had emotions different from the teacher in the anxiety/calmness realm. But, based on the findings, the two different dimensions (hostility/receptivity and anxiety/calmness) exist independently of each other.

In essence, the study revealed that a teacher can respond to inclusion through hostility, anxiety, calmness, and receptivity depending on the extraneous factors surrounding the particular classroom environment. The findings in this particular study also related to findings in the synthesis of research on inclusion by Scruggs and Mastropieri (1996) in which it was concluded that teacher attitudes towards inclusion vary. The less academic growth by special education students in the inclusive setting as witnessed by teachers, the more prone the teachers are to having feelings of hostility, apprehension and a lowered sense of self-efficacy. The less prepared a general education teacher is and the lowered sense of self-efficacy, along with predetermined attitudes about inclusion, all tend to affect her ability to perform in the inclusive setting (Jordan and Stanovich, 2001; and Soodak, et al, 1998). These particular teachers tended to revert back to the attitudes that special education students are better off being taught in the resource room environment.

This study can be viewed as one that has reliability because it used three different methods to test the selected factors of hostility/receptivity and anxiety/calmness as they were used to examine general teacher attitudes and teacher self-efficacy towards inclusion. Soodak, et al (1998) presented the findings in a straight forward matter of fact way that let the readers grasp the meaning of what the research intended to convey. The method of choosing participants was questionable in that the participants chosen for the

study had a direct connection to the university completing the research. Different results would have probably been ascertained had the researchers chosen teachers not affiliated with the people conducting the research. Another important note about this study is that it provided some evidence of the complex nature of teacher self-efficacy and teacher attitudes toward inclusion and the need for further study of the topic.

Brownell and Pajares (1999) conducted study on teacher self-efficacy and attitudes of elementary general educators toward inclusion with the hopes of finding an existing relationship between attitudes, self-efficacy, and professional teacher training. Their study was based on the conceptual framework that a teacher competence, self-efficacy, and teacher attitudes have a correlation between teacher behavior and expected outcomes. Brownell and Pajares (1999) relied on the social cognitive theory that teacher efficacy beliefs are contextual judgments of their own perceived ability to instruct special needs students in the regular environment. This is why they chose to use a path analyses technique to test hypothesized relationships.

In order to complete this particular study, Brownell and Pajares (1999) randomly selected 200 elementary general education teachers from a large Southwestern County School District. Of the 200 targeted participants, only 128 respondents (64.3 %) returned their completed surveys.

The instrument use for this study was the Working with Diverse Students: The General Educator's Perspective. Brownell and Pajares (1999) modified scales that had been validated from past teacher efficacy research. To create their instrument, the independent variables assessed in the study included socioeconomic status, perceived

administrative support, perceived quality of pre-service training, perceived quality of in-service training and perceived collegiality with fellow special education teachers. A six point Likert- type scale was used to measure the variables for the various constructs being analyzed.

Upon analyzing the variables using item analysis, Coefficient alpha was relatively high in the four constructs. Coefficient alpha for socioeconomic status was .95; .91 for perceived quality of administrative support; .96 for perceived quality of in service training and .89 for perceived collegiality with fellow special education teachers. A noted difference was shown when presented in the area of perceived collegiality with regular education teachers. The Coefficient alpha was a low .76. Another low was in the area of feeling confident that they, the teachers, had done everything possible to successfully teach special needs students in their classrooms. The Coefficient alpha for this area was .81. The two notable variables of in-service training and confidence levels (efficacy and attitudes) received coefficient alphas of .96 and .81 which relates back to the research question of how training and teacher -efficacy, and attitudes of general educators affect the inclusion paradigm.

Using path analyses, Brownell and Pajares (1999) found on average that teachers were minimally confident in their abilities to teach special needs students. First, a Goodness of Fit analyses was completed to test the theoretical model. Non- significant paths were removed thus enabling the final model to reflect what the study intended to measure. For this review, the variables of in-service training, quality of in-service training, efficacy and attitudes will be addressed. This study concluded that general

education teachers with a heightened self-efficacy and attitudes, along with proper training may be more willing to include special needs students in the regular classroom. General educators felt much more effective when they had participated in training that prepared them for instructing disabled students. The most vital training was seen in the form of presenting information pertaining to: (a) needs of disabled students, (b) curricular modifications, and (c) behavioral management techniques for students with disabilities. When the training and confidence or self-efficacy was evident, general educators normally had positive attitudes toward inclusion (Scruggs and Mastropieri, 1996; Soodak, Podell, and Lehman, 1998). In a review of the literature on teacher training and inclusion it was concluded that teacher training is essential in building general educators' self-efficacy and positive attitudes toward inclusion (Mastropieri and Scruggs, 1997; Scruggs and Mastropieri, 1996)).

Brownell and Pajares (1999) found that elementary general education teachers receiving high quality in-service and much collaboration among colleagues were more accepting of special needs students in their classrooms. They were better equipped to tailor instruction to meet those needs of the special education students due to their level of support and confidence. The findings from this study correlate with other research such as Scruggs and Mastropieri (1996) who also found that both elementary and secondary general educators feel unprepared to include special needs students in their classrooms unless they have received proper training. This is where studies have questioned the argument of the validity of inclusion.

The study does have limitations in its sampling population. The generalizations from this particular population sample may not be replicated through research for other more diverse geographical locations. The aim was to look at the tenets of collegiality, teacher preparation, administrative support and socioeconomic status as a means to analyzing teacher attitudes and self-efficacy as they relate to teaching disabled students in the inclusive setting. The research clearly dictated that for regular education teachers to feel more confident and to have a heightened sense of self-efficacy in teaching special needs students that there needed to be adequate pre-service training, collegial support and building support. Here again, as with the findings from Soodak et al (1998), teacher attitudes and self-efficacy as they relate to general educators toward inclusion are multifaceted, and there has to be adequate levels of training for teachers to develop a high degree of efficacy and confidence when instructing special needs students.

Conclusions

Numerous studies have been done on general educators' sense of teacher self-efficacy and teacher attitudes and the relationship they share towards the construct of inclusion (Scruggs and Mastropieri, 1996). Throughout the research, it has become evident that a teacher's sense of efficacy and teacher attitudes has a direct relationship with teacher effectiveness in the inclusive classroom (Bandura, 1993; Brownell and Pajares, 1996). The literature on teacher self-efficacy points out that there are several factors that influence teacher levels of self-efficacy and their ability to effectively teach disabled students in the inclusive classroom setting. Teacher attitude was found to be a major

factor contributing to teacher self-efficacy. The literature also included the factor of professional teacher preparation for the inclusive classroom setting.

Within the studies used in this literature review, emphasis on a majority of the research dealt with teacher attitudes and teacher self-efficacy towards special needs students in the inclusive classroom. Data from empirical research concluded that the general education teachers possessing a greater sense of self-efficacy, along with specific special education coursework, and professional training, tended to be more receptive to the idea of having special needs students in the regular classroom. General education teachers who had poor perceptions about special needs students' ability to learn usually had poor self efficacy and low confidence levels as evidenced in a study conducted by Buell et al, (1999).

Teacher efficacy is truly an important theoretical framework that must continue to be studied in order to find a means to increase all teachers' sense of self-efficacy. With a heightened sense of self-efficacy, general education teachers can strengthen beliefs in their abilities to teach disabled students in the regular setting.

The past research by Brownell and Pajares (1999); Jordan et al (1997); and Van Reusen et al (2000) with teacher self- efficacy and attitudes of general elementary and secondary educators toward inclusion have highlighted positive results in the inclusive classroom. Problems can be found in research that tends to have a small population and poor generalizability.

After reviewing and discussing the studies, it is evident that gaps in the research exist. There exist problems with the instrumentation used to assess teacher self-efficacy

and the degree of teacher self-efficacy. Researchers noted that new evaluative instruments that are more specific to assessing specific teacher attitudes and beliefs, along with, teacher self-efficacy are needed in the field. It is clear that teacher self-efficacy and teacher beliefs appear to resist change and future research may uncover how beliefs influence teachers, both veteran and pre-service.

Gaps were found in how general education teachers are prepared to assume the role of teaching in the inclusive setting. Effective teacher preparation programs that targeted teaching in the inclusive classroom tended to produce general educators who were better prepared to work with special needs students. These general educators appeared to be more accepting of the disabled students in the classroom. Empirical studies also found them to have a higher level of self-efficacy when teaching disabled students in the inclusive classroom setting.

CHAPTER III

Methodology

Introduction

This chapter will discuss in detail the selection process used for subject selection, the surveys used, and data collection and data analysis procedures. At the end of the chapter will be a discussion on the limitations relevant to the methodology used in this study.

Subject Selection and Description

The population used in this study consisted of general education teachers who teach in the inclusive classrooms. A total of 296 high schools that contain grades 9-12 are in the state of Virginia. A sample size of 30% of the high schools was selected to participate in the study. The sample was drawn by lottery in which the names of all high schools in Virginia were written on individual slips of paper and placed in a hat. A total of 87 schools were drawn, which represented 30% of the total number of high schools. The lottery permitted every high school an opportunity to be selected without replacement. The probability of schools having equal chances of being selected dropped after each drawing.

Instrumentation

Teacher efficacy was measured using the Teachers' Sense of Efficacy Scale developed by Tschannen-Moran and Hoy in 1990 at the Ohio State University. This instrument represents a revised version of the Teacher Efficacy Scale devised by Gibson and Dembo (1984). Gibson and Dembo (1984), in turn, had devised their instrument from

Ashton and Webb's Teacher Efficacy scale in 1982. All three of the aforementioned scales are based on the works on Bandura (1977, 1986), who noted that the types of outcomes teachers anticipate depend largely on personal judgments and how well they perceive their ability to handle any given situation (Guskey and Passaro, 1993). The Teachers' Sense of Efficacy Scale, an adapted version of Gibson and Dembo's (1984) teacher efficacy scale, has been widely used in schools and research to measure teacher efficacy (Henson, Kogan and Vacha-Haase 2001).

Tschannen-Moran et al, in devising the Teachers' Sense of Efficacy Scale, felt that Gibson and Dembo's (1982) scale that measures the factors of personal teacher efficacy (PTE) and general teacher efficacy (GTE), did not precisely represent Bandura's (1977) self-efficacy and social outcome expectancy dimensions of social cognitive theory (SCT) (Henson, Kogan, and Vacha-Haase, 2000). Tschannen-Moran et al., in keeping in touch with Bandera's (1977) social cognitive theory devised the Teachers' Sense of Efficacy Scale. This model proposed by Tschannen et al. (1990) has the capability of resulting in a new and potentially more precise measure of teacher efficacy. The scale consists of 10 items on a 6 point Likert scale from "strongly agree" to "strongly disagree."

Reliability for this instrument, as determined through KR-21 (Kuder and Richardson, 1937), is high because it is an adaptation of the original Gibson and Dembo's (1984) Teacher Efficacy Scale which received high ratings from widespread use. Validity for the Teachers' Sense of Efficacy Scale is also high because the scale measures what it

intends to measure (efficacy) and the interpretation of test scores and inferences taken from the results prove to be appropriate and adequate.

Throughout using The Teachers' Sense of Efficacy Scale in other empirical research, three moderately correlated factors have surfaced. The factors are: Efficacy in Student Engagement, Efficacy in Instructional Practices and Efficacy in Classroom Management (Tschannen-Moran and Hoy, 2001). These factors will be used to summarize the interrelationship among the variables of grade level, years of experience, and professional training.

To measure teacher attitudes, the Scale of Teachers' Attitudes Toward Inclusive Classrooms (STATIC) was used. The STATIC, is divided into three distinct sections. It consists of 25 items on a 6-point Likert type scale from "strongly agree" to "strongly disagree". The first section deals with general attitudes and opinions toward mainstreaming and inclusion (questions 1-12). The second sections deals with teacher attitudes and adaptations teachers are willing to make in an inclusive setting (questions 13-20). The third section deals with teacher attitudes and training of secondary general educators (questions 21-28).

Data Collection

All superintendents of each school division, as well as building principals, participating in the study were sent a letter asking permission to conduct an electronic survey of secondary general education teachers who teach in the inclusive setting. This on-line electronic survey was developed specifically for this study through the survey company SurveyMonkey.com. Questions to both surveys were loaded onto the survey

site. The first survey on the website was the teacher attitudes survey and the second survey was teacher efficacy. The participating teachers were provided the web-site address directly linking them to the surveys on SurveyMonkey.com.

Once teachers accessed the website, they began to answer questions pertaining to teacher attitudes towards mainstreaming/inclusion. At the end of the teacher attitudes survey, the same teachers were directed to continue on to the teacher efficacy survey which followed the teacher attitudes survey. Teachers were asked to mark their responses accordingly and then submit the surveys. After submission of responses, the teachers were directed to exit the survey window.

When permission had been granted from the superintendent and building principals, packets were sent directly to the schools. These packets were addressed to the building principal with instructions on how to disseminate the information to the teachers who will be participating in the study. The packets included the information sheets detailing the purpose of the study on teacher efficacy, teacher attitudes and inclusion. Each packet also had the website address with information on how to access and close the electronic on-line surveys. The secondary teachers participating in the study were reminded that their responses are anonymous and optional. The secondary teachers who chose to participate were considered as self volunteers. Biases may be present because the teachers were self-volunteers unknown to the researcher. The researcher cautions readers to interpret the findings from this study with caution.

Teachers had two weeks to respond to the questions. A second reminder was made via a phone conversation with the building administrator asking him/her to assist in

getting teachers to complete the surveys. After two weeks following the second reminder, a third reminder was done through mail followed up with another phone call to the building administrator. At the end of the three contacts, the surveys were closed and an analysis of the data began with the returned surveys.

Data Analysis

Being the survey data was collected on-line electronically and stored in an online database, it was downloaded onto a computer for further analysis. Once the data was downloaded, it was imported into the SPSS software for analysis. The SPSS software ran descriptive statistics to identify frequencies, percentages, central tendency, and measures of variation. T-tests were also run to determine if there existed statistical significance in mean scores as they related to items in the survey instrument. Tables and figures were used to exhibit the data.

Qualitative Evaluation

A qualitative evaluation of selected teachers was completed to obtain a balanced picture of the perceptions teachers hold about inclusion. These data were used to augment the data obtained through the survey instrument and to provide additional data concerning the view teachers have about responding to an electronic survey instrument. Data concerning this aspect could not very well be obtained through the survey instrument itself.

The interview protocol was so constructed that teachers could respond not only to how they perceived inclusion as a viable organizational arrangement, but also to how they have changed their instructional methodology. A set of six questions with prompts

was developed to obtain data about inclusion. Responses to these open-ended questions provided a rich cache of data concerning inclusion.

The response rate for teachers using the electronic on-line survey instrument dictated that data concerning how teachers reacted to this type of data collection be made. A set of five open-ended questions were developed with prompts concerning the response of teachers to the electronic survey. Data from these teachers provided keen insights to how teachers respond to such surveys.

The complete protocol can be found in Appendix E.

Qualitative Subject Selection

In order to select six subjects to participate in the telephone interviews, the 87 high schools that had been previously selected were contacted via e-mail. The e-mail detailed the purpose of the study and solicited individuals to participate. An information sheet was included in the e-mail. The e-mail addresses were obtained from individual school websites via the Department of Education

To select the subjects, a criteria was established which included the selection of two teachers from each of the geographic locations of rural, urban, and suburban to go along with the original variables used in the on-line survey. The selection process also intended to have a balance of males and females. The first six teachers to respond who met the gender and geographic location criteria were self-selected to participate. There was no randomization.

Qualitative Data Collection

Each secondary teacher selected was contacted for the interview to determine a convenient time for them to participate in an interview. The interviews were conducted during after school hours in the evening or week ends. The teachers were contacted by telephone and again asked to participate. When they stated they wanted to participate, an appropriate time to conduct the telephone interview was established. This was followed by an e-mail to make sure the date and time were correct.

Once the interview process started, each teacher was asked the questions on the protocol. The responses were recorded in writing by the researcher. Teachers were prompted on each question so that they could express their feelings and thoughts adequately. The researcher queried the teachers as much as possible trying to get them to openly share their views concerning each question.

Raw data from each teacher extracted through the interviews were transferred to the computer and organized according to each question asked. The responses were then emailed to the teachers and they were asked to review the data for errors and omissions. After each teacher had reviewed the data and responded to the email, data were either modified or remained the same as presented.

Data for the first six questions of the interview protocol were combined into a discussion of the perceptions of teachers regarding teacher efficacy and inclusion. The data for the last four questions regarding how teachers felt about the on-line survey were grouped according to each question.

Data Analysis

Data obtained through the interview and refined by the teachers were next subjected to a thematic analysis. The responses of each teacher were analyzed to determine if there were any major themes or thoughts. Next the themes identified for each teacher for each question were combined into a single set of themes for each question. These responses were then reported as combined responses for each question.

Data for the first five questions dealing with teacher efficacy and inclusion were reported in narrative form grouped around this subject. Data from the last five questions that dealt with teacher reaction to on –line survey were presented in discussion form.

CHAPTER IV

Results

The purpose of this chapter is to present the analyses of the data collected in the study of the relationship between secondary general education teachers' self-efficacy and attitudes and how they relate to teaching disabled students in the inclusive classroom setting. This section describes and analyses findings as they relate to each research question in the different domains. All analyses were performed using the Statistical Package for the Social Sciences.

Chapter 4 contains the findings of the one research question and the two sub questions examining the relationship between teacher self-efficacy and teacher attitudes towards inclusion:

1. Is there a relationship between teacher self-efficacy and teacher attitudes toward inclusion?
 - a. Is this relationship influenced by factors such as geographic location, grade taught, gender, and years of experience?
 - b. How do the attitudes of secondary teachers compare with attitudes of elementary teachers as reported in empirical research?

Characteristics of Survey Respondents

Survey packets were mailed out to 89 secondary schools in Virginia. These schools had been purposely selected out of the 296 secondary schools in Virginia to participate in this study. All secondary teachers who were currently teaching in the inclusive setting were eligible to participate in the study. Secondary teachers were

informed that if they wished to participate in the study that they could access the survey on-line at SurveyMonkey.com. All other relevant information related to the study was explained in the form of a letter to the teachers.

Due to the large number of research requests school divisions receive on a yearly basis, many divisions have a process that reviews each request then decides whether or not the division will allow its employees to participate. This was found to be the case for several schools who indicated that they would not be participating in the survey request. On the other side, there were schools who did not respond one way or the other. After three phone calls, second mailings of information packets, and several e-mail requests to secondary teachers at individual school websites, the on-line survey was finally shut down after 12 weeks. The data that had been received was analyzed for final results. All together, 261 responses were generated from the secondary teachers who chose to participate.

Table 1 provides a breakdown of the respondents by geographic location, grade taught, gender, and years of experience. Of the respondents, it is interesting to note that there appears to be differences in who responded in terms of the different variables of location, gender, grade taught, and experience. As for geographic location, the rural teachers accounted for 57% (148) of the responses while the urban/suburban group accounted for 43% (112), making for a small difference of 14% between the two groups.

The variable dealing with gender shows a 20% difference in response rates between male (40%) and female educators (60%), whereas there is a 14% difference in

the variables of geographic location with rural respondents (57%) and urban/suburban respondents (43%).

Similar differences in percentages rates can also be seen in the variable of grade taught. Overall the percentages were: ninth grade teachers (27%), tenth grade teachers (22%), eleventh grade teachers (25%), and twelfth grade teachers (26%). A difference of a 5% response rate was found between the ninth and tenth grade teachers whereas a 1% response rate was found between the eleventh and twelfth grade teachers.

As for percentage differences in the variable of years of experience, percentages for 0-5 years (24%) and 6-10 years of experience (29%) are relatively close in comparison to the larger discrepancy between the 11-15 years of experience (12%) and the more experienced group with 16 or more years of teaching experience (35%).

Table 1

Demographic Characteristics of Respondents

Variable	<i>n</i> Frequency	Percent
Geographic Location		
Rural	148	57
Urban/Suburban	112	43
Total	261	100
Grade Taught		
9	70	27
10	57	22
11	65	25
12	69	26
Total	261	100
Gender		
Male	104	40
Female	155	60
Years of Experience		
0-5	63	24
6-10	76	29
11-15	31	12
16 or more	91	35
Total	261	100

Analysis of Research Questions

Analyses were completed based on the variables of geographic location, grade taught, gender, and years of experience. Tables in each section report the results of the analyses, as well as, significant findings for items when analyzed with the different variables.

Opinions About Mainstreaming/Inclusion

Frequency distributions mean scores, and standard deviations were calculated for the 12 Likert scale items relating to teachers' opinions about mainstreaming and inclusion. The items were ranked on a five point scale as follows: 1= strongly agree, 2=agree, 3=undecided, 4=disagree, and 5=strongly disagree. For items 23-26, a scale of 6 equaled not applicable. Overall total ratings on the five point Likert scale ranged from a high mean score of 4.02 to a low mean score of 1.06 on the 12 items dealing with teacher attitudes and opinions about mainstreaming. This is taking into consideration all four variables of location, grade taught, gender, and years of experience.

Responses for each of the 12 items on opinions about mainstreaming/inclusion were disaggregated by location, grade taught, gender and experience as represented by Tables 2 -7. For the most part, the mean scores for survey questions relating to opinions about mainstreaming and inclusion appear to be fairly consistent among the groups. Table 2 indicates that rural educators tended to have means ranging from a high mean of 4.05 to a low mean 2.03. Urban/suburban educators responding to the same set of questions tended to have means score to ranging from 4.00 to 2.00. The high mean scores for the survey items 1 and 2 in Table 2 centered on the perception that mainstreaming and

inclusion mean extra work for teachers teaching in the inclusive classroom setting. A *t*-test revealed no statistical significance in the eight items listed.

Table 2

Opinions About Mainstreaming

Variable: Geographic Location

Survey Statements	Total Sample (n=261)	Rural Teachers	Urban/Suburban Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Mainstreaming does not mean extra work for the teacher.	4.02 .91	4.03 .93	4.00 .90	.02	.81
2. Inclusion does not mean extra work for the teacher.	4.02 .91	4.05 .93	4.10 .86	.03	.70
3. I favor including students with LD in regular classrooms full time.	2.08 .89	2.14 .90	1.10 .88	1.31	.17

Table 2 (continued)

Opinions About Mainstreaming

Variable: Geographic Location

Survey Statements	Total Sample (n=261)		Rural Teachers		Urban/Suburban Teachers		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
4. I favor including students with LD in regular classrooms full time.	2.61 1.11		2.59 1.11		2.61 1.12		.03	.93
5. The academic needs of students with LD can best be served through special, separate classes.	3.43 1.13		3.39 1.12		3.49 1.39		.07	.48
6. The social needs of students with LD can best be served through special, separate classes.	3.81 1.06		3.82 1.03		3.79 1.10		.56	.82

Table 2 (continued)

Opinions About Mainstreaming

Variable: Geographic Location

Survey Statements	Total Sample (n=261)		Rural Teachers		Urban/Suburban Teachers		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
7. Students with LD will benefit academically by being in regular classrooms part time.	2.2 .85		2.36 .88		2.13 .80		4.78	.02 *
8. Students with LD will benefit academically by being in regular classrooms full time.	2.18 1.00		2.78 1.04		2.86 .96		89	.52
9. Students with LD will show improved social skills if mainstreamed part time.	2.30 .78		2.37 .79		2.21 .75		3.70	.09

*p<.05

Table 2 (continued)

Opinions About Mainstreaming

Variable: Geographic Location

Survey Statements	Total Sample (n=261)	Rural Teachers	Urban/Suburban Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
10. Students with LD will show improved social skills with inclusion full time.	2.57 .94	2.58 .94	2.54 .95	.07	.70
11. LD students mainstreamed part time adjust better in society after school.	2.02 .76	2.03 .76	2.00 .76	.04	.72
12. LD students mixed with all students full time adjust better in society after school.	2.43 .97	2.43 .97	2.41 .96	.01	.86

Tables 3 and 4 report data about Opinions About Mainstreaming/Inclusion as it relates to grade level taught. For ninth and tenth grade educators, mean scores and standard deviations ranged from a high 4.13 (.88) for 9th grade teachers to a low of 2.02 (.77) for 10th grade teachers. Table 3 shows that 11th and 12th grade teachers had mean scores to range from a high of 4.01 for 12th grade teachers to a low of 2.07 (1.74) whereas the 11th grade teachers had a high mean score of 3.95 to a low mean of 1.74 as depicted in Table 4. The means and standard deviations were all within the average for the 9th and 10 grade groups, whereas the teachers of upperclassmen tended to have fluctuations in means scores.

A *t*-test revealed that none of these comparisons were statistically significant.

Table 3

Opinions About Mainstreaming

Variable: Grade Taught

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Mainstreaming does not mean extra work for the teacher.	4.02 .91	4.13 .88	4.09 .85	1.39	.79
2. Inclusion does not mean extra work for the teacher.	4.07 .90	4.11 .80	4.07 1.08	2.02	.79
3. I favor including students with LD in regular classrooms full time.	2.08 .89	2.09 .83	2.02 .77	.29	.64

Table 3 (continued)

Opinions About Mainstreaming

Variable: Grade Taught

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
4. I am in favor of including students with LD in regular classrooms.	2.61 1.11	2.67 1.11	2.49 1.04	.65	.35
5. The academic needs of students with LD can best be served through special, separate classes.	3.43 1.13	3.53 1.13	3.42 1.15	.13	.60
6. The social needs of students with LD can best be served through separate classes.	3.81 1.06	3.81 1.16	3.77 1.10	.17	.83

Table 3 (continued)

*Opinions About Mainstreaming**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
7. Students with LD will benefit academically by being in regular classes part time.	2.28 .85	2.39 .87	2.40 .86	.84	.16
8. Students with LD will benefit academically by being in regular classrooms full time.	2.81 1.00	2.96 .98	2.81 .08	1.11	.41
9. Students with LD will show improved social skills if mainstreamed part time.	2.30 .78	2.26 .81	2.26 .70	1.25	.97

Table 3 (continued)

Opinions About Mainstreaming

Variable: Grade Taught

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
10. Students with LD will show improved social skills with inclusion full time.	2.57 .94	2.66 .87	2.37 1.01	1.01	.09
11. LD students mainstreamed part time adjust better in society after school.	2.02 .76	1.93 .77	2.07 .73	.47	.29
12. LD students mixed with all students full time adjust better in society after school.	2.43 .97	2.51 1.03	2.32 .91	.16	.26

Table 4

Opinions About Mainstreaming

Variable: Grade Taught

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Mainstreaming does not mean extra work for the teacher.	4.02 .91	4.42 .93	4.01 .96	1.01	.81
2. Inclusion does not mean extra work for the teacher.	4.07 .90	3.95 .86	4.14 .86	.25	.73
3. I favor including students with LD in regular classrooms full time.	2.08 .89	2.12 1.02	2.07 .91	.41	.83

Table 4 (continued)

Opinions About Mainstreaming

Variable: Grade Taught

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
4. I am in favor of including students with LD in regular classrooms.	2.61 1.11	1.74 1.15	2.51 1.13	.01	.42
5. The academic needs of students with LD can best be served through special, separate classes.	3.43 1.13	3.40 1.14	3.37 1.11	.27	.30
6. The social needs of students with LD can best be served through separate classes.	3.81 1.06	3.82 1.07	3.84 .90	.88	.31

Table 4 (continued)

Opinions About Mainstreaming

Variable: Grade Taught

Survey Statements	Total Sample (n=261)	11th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
8. Students with LD will benefit academically by being in regular classes part time.	2.28 .85	2.34 .83	2.20 .83	.25	.66
9. Students with LD will show improved social skills if mainstreamed (PT).	2.81 1.00	2.74 .97	2.74 .98	.28	.51
10. Students with LD will show improved social skills if mainstreamed (FT).	2.30 .78	2.32 .81	2.34 .78	.00	.64

Table 4 (continued)

*Opinions About Mainstreaming**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
10. Students with LD will show improved social skills with inclusion full time.	2.57 .94	2.54 .99	2.67 .98	.73	.44
11. LD students mainstreamed part time adjust better in society after school.	2.02 .76	2.00 .81	2.09 .72	.02	.79
12. LD students mixed with all students full time adjust better in society after school.	2.43 .97	2.46 1.03	2.41 .90	2.53	.28

Table 5 reports disaggregated data on Opinions About Mainstreaming and Inclusion as it relates to gender. All together, 104 males (40%) and 155 (59) females responded to the 12 questions in Table 5.

Mean scores on the total group ranged from 4.02 to 1.06. The mean scores of the males ranged from 4.13 to 1.4. For the females, the range was from 4.02 to 1.99. Both groups tended to respond favorably to questions 1 and 2, which stated whether or not mainstreaming/inclusion meant extra work for the educators. The males (4.13) had a higher mean for item 1 than the females (3.95) referring to mainstreaming not meaning extra work for the teacher. The females had a higher mean score for item 2 (4.02) than the males (1.14) which dealt with inclusion not meaning extra work for the teacher.

A *t*-test revealed no statistical significance in the items listed.

Table 5

Opinions About Mainstreaming

Variable: Gender

Survey Statements	Total Sample (n=261)	Male Teachers	Female Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Mainstreaming does not mean extra work for the teacher.	4.02 .91	4.13 .89	3.95 .93	.05	.13
2. Inclusion does not mean extra work for the teacher.	4.07 .90	4.44 .89	4.02 .91	.05	.27
3. I favor including students with LD in regular classrooms full time.	2.08 .89	2.21 1.00	2.00 .79	9.18	.05

Table 5 (continued)

*Opinions About Mainstreaming**Variable: Gender*

Survey Statements	Total Sample (n=261)		Male Teachers		Female Teachers		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
4. I am in favor of including students with LD in regular classrooms.	2.61 1.11		2.57 1.13		2.62 1.10		.04	.68
5. The academic needs of students with LD can best be served through special, separate classes.	3.43 1.13		3.26 1.12		3.54 1.12		.69	.05
6. The social needs of students with LD can best be served through separate classes.	1.06 3.81		3.82 1.05		3.81 1.06		.01	.94

Table 5 (continued)

Opinions About Mainstreaming

Variable: Gender

Survey Statements	Total Sample (n=261)	Male Teachers	Female Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
7. Students with LD will benefit academically by being in regular classes part time.	2.28 .85	2.31 .88	2.26 .83	1.07	.65
8. Students with LD will benefit academically by being in regular classrooms full time.	2.81 1.00	2.78 1.00	2.83 1.00	.35	.67
9. Students with LD will show improved social skills if mainstreamed part time.	2.30 .78	2.31 .75	2.29 .79	.04	.79

Table 5 (continued)

Opinions About Mainstreaming

Variable: Gender

Survey Statements	Total Sample (n=261)	Male Teachers	Female Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
10. Students with LD will show improved social skills with inclusion full time.	2.57 .94	2.61 .91	2.55 .97	1.00	.63
11. LD students mainstreamed part time adjust better in society after school.	2.02 .76	2.00 .75	2.03 .76	.06	.74
12. LD students mixed with all students full time adjust better in society after school.	2.43 .97	2.40 .95	2.45 .98	.28	.70

Tables 6 and 7 report disaggregated data on Opinions About Mainstreaming and Inclusion as it relates to years of teaching experience. The responses for groups 0-5 and 6-10 are displayed in Table 6 and the responses of teachers in the group of 11-15 and 16+ are displayed in table 7.

As shown in Table 6, the 0-5 and 6-10 years of experience group had mean scores to range from a high of 4.08 for item 2 in the 6-10 year group to 4.00 for the 0-5 group in item 1. Both the 0-5 (1.94) and 6-10 (2.09) year groups had low mean scores for item 11. Item 11 dealt with the perception of teachers that LD students mainstreamed part time may adjust better in society.

Table 7 shows that mean scores for the 11-15 group ranged from a high mean of 4.03 for items 1 and 2 to a low mean score of 1.74 for item 3. Both items one and two dealt with mainstreaming and inclusion not meaning extra work for teachers while item three dealt with teachers being in favor of mainstreaming LD students in regular classrooms.

The 16+ group, as seen in table 7, scored higher on 10 out of the 12 items listed. The high mean scores were for items: 1 (4.09), 2 (4.13), 3 (2.09), 4 (2.55), 7 (2.33), 8 (2.86), 9 (2.35), 10 (2.58), 11 (2.10), and 12 (2.49). Overall, mean scores for the 16+ group ranged from a high of 4.13 for item 2 to a low of 2.09 for item 3. The 16+ group tended to have mean scores that were more consistent than with the 11-15 group.

A *t*-test revealed a statistical significance difference in mean scores of item 11 as shown in Table 7 for the 11-15 and 16+ groups. Item 11 dealt with perceptions of LD students better adjusting in society if included in the regular classroom part time.

Table 6

*Opinions About Mainstreaming**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Mainstreaming does not mean extra work for the teacher.	4.02 .91	3.94 .95	4.00 .97	.31	.70
2. Inclusion does not mean extra work for the teacher.	4.07 .90	4.00 .92	4.08 .96	1.29	.62
3. I favor including students with LD in regular classrooms full time.	2.08 .98	2.13 .94	2.16 .90	.28	.84

Table 6 (continued)

Opinions About Mainstreaming

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
4. I am in favor of including students with LD in regular classrooms.	2.61 1.11	2.68 1.15	2.68 1.11	.04	1.00
5. The academic needs of students with LD can best be served through special, separate classes.	3.43 1.13	3.40 1.16	3.42 1.05	1.37	.90
6. The social needs of students with LD can best be served through separate classes.	3.81 1.06	3.92 1.02	3.75 1.08	.77	.35

Table 6 (continued)

Opinions About Mainstreaming

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
7. Students with LD will benefit academically by being in regular classes part time.	2.28 .85	2.29 .81	2.29 .85	.00	.98
8. Students with LD will benefit academically by being in regular classrooms full time.	2.81 1.00	2.95 .97	2.71 .89	.01	.13
9. Students with LD will show improved social skills if mainstreamed part time.	2.30 .78	2.25 .76	2.36 .78	.85	.39

Table 6 (continued)

Opinions About Mainstreaming

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
10. Students with LD will show improved social skills with inclusion full time.	2.57 .94	2.52 .96	2.70 1.02	.67	.31
11. LD students mainstreamed part time adjust better in society after school.	2.02 .76	1.93 .71	2.09 .79	.52	.23
12. LD students mixed with all students full time adjust better in society after school.	2.43 .97	2.41 1.04	2.45 .96	.70	.84

Table 7

Opinions About Mainstreaming

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Mainstreaming does not mean extra work for the teacher.	4.02 .91	4.03 .88	4.09 .91	.11	.76
2. Inclusion does not mean extra work for the teacher.	4.07 .90	4.03 .88	4.13 .85	.05	.58
3. I favor including students with LD in regular classrooms full time.	2.08 .98	1.74 .68	2.09 .89	.12	.05

Table 7 (continued)

Opinions About Mainstreaming

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
4. I am in favor of including students with LD in regular classrooms.	2.61 1.11	2.42 1.06	2.55 1.11	.11	.57
5. The academic needs of students with LD can best be served through special, separate classes.	3.43 1.13	3.71 1.07	3.37 1.19	2.57	.17
6. The social needs of students with LD can best be served through separate classes.	3.81 1.06	4.00 1.03	3.73 1.07	.59	.21

Table 7 (continued)

Opinions About Mainstreaming

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
7. Students with LD will benefit academically by being in regular classes part time.	2.28 .85	2.06 .68	2.33 .93	.60	.15
8. Students with LD will benefit academically by being in regular classrooms full time.	2.81 1.00	2.65 1.07	2.86 1.00	.34	.34
9. Students with LD will show improved social skills if mainstreamed part time.	2.30 .78	2.06 .73	2.35 .79	.93	.08

Table 7 (continued)

Opinions About Mainstreaming

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
10. Students with LD will show improved social skills with inclusion full time.	2.57 .94	2.29 .86	2.58 .88	.13	.11
11. LD students mainstreamed part time adjust better in society after school.	2.02 .76	1.77 .62	2.10 .79	.01	.04*
12. LD students mixed with all students full time adjust better in society after school.	2.43 .97	2.22 .92	2.49 .97	1.15	.17

Adaptations

Frequency distributions mean scores, and standard deviations were calculated for the 8 Likert scale items relating to the willingness or unwillingness of teachers to modify and/or make adaptations for LD students in the inclusive classroom. The items were ranked on a five point scale as follows: 1= strongly agree, 2=agree, 3=undecided, 4=disagree, and 5=strongly agree. Overall total ratings on the five point Likert scale ranged from a high mean score of 3.69 to a low mean score of 1.98 on the 8 items dealing with adaptations. This is taking into consideration all four variables of location, grade taught, gender, and years of experience.

Responses for each of the eight items on adaptations were disaggregated by location, grade taught, gender and experience as represented by Tables 8 -13. For the most parts the mean scores for survey questions relating to adaptations, appear to be fairly consistent among the groups.

Table 8 reports data for the 8 items in the survey dealing with adaptations. These data represents responses for the rural and urban /suburban groups who responded to the survey items.

Mean scores were considerably higher for urban/suburban educators on 5 out of 8 items. The highest mean scores for rural educators was for item 18 (3.64) in comparison to the urban/suburban group who had a mean score of 3.77 for the same item. The highest mean score the urban/suburban group was for item 17 (4.01).Both items 17 and 18 dealt with the notion that teachers are not willing to adapt curriculum for part time or full time LD students in the regular classroom. According to the data results, the rural teachers

disagreed with the statement that they were less inclined to make changes for part time LD students or to modify teaching style for part time or full time students in the regular classroom.

The data show that the urban/suburban teachers disagreed with the statement that they were less inclined to make changes for part time or full time LD students or modify teaching styles for part time or full time LD students in the regular classroom.

A *t*-test revealed a statistical significance in mean scores in item 17 which dealt with the willingness of educators to adapt curriculum for part time LD students in the regular classroom.

Table 8

*Adaptations**Variable: Geographic Location*

Survey Statements	Total Sample (n=261)	Rural Teachers	Urban/Suburban Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
13. Willing to make changes for part time LD students	1.98 .76	2.03 .80	1.91 .72	.33	.23
14. Willing to make changes for full time LD students	2.28 .94	2.26 .94	2.30 .94	.00	.78
15. Willing to modify teaching style for part time LD students	2.02 .79	2.05 .75	1.97 .85	.08	.46
16. Willing to modify teaching style for full time LD students.	2.64 2.49	2.65 3.38	2.28 1.03	.69	.26

Table 8 (continued)

Adaptations

Variable: Geographic Location

Survey Statements	Total Sample (n=261)		Rural Teachers		Urban/Suburban Teachers		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
17. Not willing to adapt curriculum for part time LD students.	3.69 1.26		3.45 1.15		4.00 1.32		4.264	.00*
18. Not willing to adapt curriculum for full time LD students.	3.69 1.07		3.64 .98		3.77 1.17		2.78	.35
19. Not willing to adapt grading policy for part time LD students.	3.52 1.14		3.43 1.15		3.65 1.11		.23	.11
20. Not willing to adapt grading policy for (FT) LD students.	3.43 1.18		3.34 1.22		3.56 1.12		1.74	.13

*p<.05

Tables 9 and 10 report data disaggregated for items 13-20. These items deal with making changes and adaptations for LD students in the regular classroom. Tables 9 and 10 exhibit the data by grade taught. Tenth grade educators had mean scores higher in three out of the eight items dealing with adaptations. Mean scores for the 9th and 10 grade teachers in Table 9 ranged from a high mean of 4.06 (9th grade group for item 17) to a low of 1.95 (10th grade group for item 13). Items 15, 17, 18, 19, and 20 yielded higher mean scores for 9th grade teachers in comparison to the 10th grade teachers for the same items. These items dealt with teachers willing to modify teaching style and the unwillingness to adapt curriculum for part time or full time LD students in the regular classroom.

In looking at the data for teachers for the 11th and 12th grades, mean scores as shown in Table 10 show that the 12th grade teachers had higher mean scores in comparison with the 11th grade teachers for items 14 (2.35), 15 (2.01), 17 (3.58), 18 (3.81) and 19 (3.55). These items dealt with the willingness of educators to make changes and modifications for full time LD students and the unwillingness to make changes for part time LD students. Mean scores for 11th grade teachers were consistent except for item 15 which dealt with modifying teaching styles for part time LD students.

A *t*-test revealed no statistical difference in the eight items on adaptations.

Table 9

*Adaptations**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
13. Willing to make changes for part time LD students	1.98 .76	1.93 .77	1.95 .54	8.53	.88
14. Willing to make changes for full time LD students	2.28 .94	2.21 .92	2.25 .96	.32	.79
15. Willing to modify teaching style for part time LD students	2.01 .79	2.06 .88	2.02 .79	1.17	.79
16. Willing to modify teaching style for full time LD students.	2.64 2.49	2.30 .86	2.95 .35	2.67	.64

Table 9 (continued)

Adaptations

Variable: Geographic Location

Survey Statements	Total Sample (n=261)		9 th Grade Teachers		10 th Grade Teachers		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
17. Not willing to adapt curriculum for part time LD students.	3.69 1.26		4.06 1.46		3.67 1.09		.29	.35
18. Not willing to adapt curriculum for full time LD students.	3.69 1.07		4.69 1.00		3.63 1.11		.55	.60
19. Not willing to adapt grading policy for part time LD students.	3.52 1.14		3.84 1.02		3.26 1.25		6.53	.83
20. Not willing to adapt grading policy for (FT) LD students.	3.43 1.18		3.72 1.08		3.28 1.16		.37	.16

Table 10

*Adaptations**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
13. Willing to make changes for part time LD students	1.98 .76	2.03 .90	2.00 .79	.55	.83
14. Willing to make changes for full time LD students	2.28 .94	2.30 1.01	2.35 .94	1.26	.80
15. Willing to modify teaching style for part time LD students	2.02 .79	1.97 .70	2.01 .80	1.55	.73
16. Willing to modify teaching style for full time LD students.	2.64 2.49	2.41 1.00	2.37 1.04	1.66	.83

Table 10 (continued)

Adaptations

Variable: Grade Taught

Survey Statements	Total Sample (n=261)		11 th Grade Teachers		12 th Grade Teachers		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
17. Not willing to adapt curriculum for part time LD students.	3.69 1.25		3.42 1.84		3.58 1.14		.46	.42
18. Not willing to adapt curriculum for full time LD students.	3.69 1.07		3.62 1.19		3.81 1.00		4.68	.30
19. Not willing to adapt grading policy for part time LD students.	3.52 1.14		3.35 1.22		3.55 1.02		3.68	.06
20. Not willing to adapt grading policy for (FT) LD students.	3.43 1.18		3.38 1.26		3.29 1.19		.48	.66

Table 11 reports disaggregated data by gender as it relates to the items 13-20 concerning the willingness or unwillingness of teachers to make adaptations for LD students in the regular classroom. Table 11 shows that the mean scores for males were higher in items 13 (2.05), 14 (2.37), 15 (2.14), and 16 (2.62) in comparison with mean score for the same items for the females.

The data exhibited in Table 11 shows that the mean scores for the females tended to be higher for items 17 (3.76), 18(3.79), 19 (3.61), and 20 (3.48) in comparison with the male scores for the same items.

Overall, the items were evenly split between the males and females. Females tended to score higher on the willingness to make adaptations and to adapt teaching styles while females scored higher on not willing to make changes or adapt the curriculum or grading for part time or full time LD students.

A *t*-test revealed a statistical significance in item 15 which dealt with modifying teaching styles for full time LD students.

Table 11

Adaptations

Variable: Gender

Survey Statements	Total Sample (n=261)	Male Teachers	Female Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
13. Willing to make changes for part time LD students	1.98 .76	2.05 .81	1.94 .73	3.42	.25
14. Willing to make changes for full time LD students	2.28 .94	2.36 .97	2.20 .91	3.63	.19
15. Willing to modify teaching style for part time LD students	2.02 .79	2.14 .84	1.93 .75	1.49	.03*
16. Willing to modify teaching style for (FT) LD students.	2.64 2.49	2.62 4.00	2.39 1.00	1.57	.51

*p<.05

Table 11(continued)

*Adaptations**Variable: Gender*

Survey Statements	Total Sample (n=261)	Male Teachers	Female Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
17. Not willing to adapt curriculum for part time LD students.	3.69 1.25	3.57 1.05	3.75 1.37	.71	.26
18. Not willing to adapt curriculum for full time LD students.	3.69 1.07	3.55 1.07	3.79 1.07	.13	.07
19. Not willing to adapt grading policy for part time LD students.	3.52 1.14	3.38 1.16	3.61 1.11	.17	.10
20. Not willing to adapt grading policy for (FT) LD students.	3.43 1.18	3.35 1.16	3.48 1.19	.67	.38

Tables 12 and 13 which deal with items 13-20 concerning adaptations, report disaggregated data by years of experience. The 6-10 teachers had higher mean scores for five out of eight items dealing with adaptations as compared with the 0-5 teachers. The 6-10 teachers were more willing to make changes for LD students and modify teaching styles as shown in items 13 (2.03), 17 (3.93), 18 (3.79), 19 (3.61), and 20 (3.48) in comparison with the 0-5 teachers for the same items.

Data show that the 0-5 teachers had higher mean scores for items 14 (2.32), 15 (2.08), and 16 (2.35) in comparison with the 6-10 group for the same items. Table 12 shows that the 6-10 year group was less willing to make changes in curriculum or grading policies as shown in items 18, 19, and 20 as compared with the 0-5 teachers for the same items. A statistical significance, as shown in table 12, was found in item 17 which dealt with the unwillingness to adapt curriculum for part time LD students.

As shown in table 13 which represents data for the 11-15 and 16+ groups, the 16+ group of teachers consistently had higher mean scores for items 13 (2.02), 14 (2.37), 15 (2.08), 16 (2.95), 18 (3.79), 19 (3.61) and 20 (3.48) as compared with the 11-15 teachers for the same items. These items dealt with willingness and unwillingness to make adaptations and modifications in curriculum and grading.

A *t*-test revealed a statistical significance in item 17 as shown in tables 12 and 13. This item pertained to the unwillingness to adapt curriculum for part time students.

Table 12

*Adaptations**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
13. Willing to make changes for part time LD students	1.98 .76	1.98 .77	2.03 .78	.33	.75
14. Willing to make changes for full time LD students	2.28 .94	2.32 1.04	2.13 .85	4.65	.25
15. Willing to modify teaching style for part time LD students	2.02 .79	2.08 .86	1.92 .74	1.60	.25
16. Willing to modify teaching style for (FT) LD students.	2.64 2.49	2.35 1.07	2.21 .87	6.68	.40

Table 12 (continued)

Adaptations

Variable: Years of Experience

Survey Statements	Total Sample (n=261)		0-5 Years		6-10 Years		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
17. Not willing to adapt curriculum for part time LD students.	3.69 1.25		3.51 1.16		3.93 .96		12.09	.00*
18. Not willing to adapt curriculum for full time LD students.	3.69 1.07		3.55 1.07		3.79 1.07		.73	.91
19. Not willing to adapt grading policy for part time LD students.	3.52 1.14		3.38 1.16		3.61 1.11		.17	.70
20. Not willing to adapt grading policy for (FT) LD students.	3.43 1.18		3.35 1.16		3.48 1.19		.21	.33

*p<.05

Table 13

*Adaptations**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
13. Willing to make changes for part time LD students	1.98 .76	1.71 .69	2.02 .76	.54	.05
14. Willing to make changes for full time LD students	2.28 .94	2.32 1.04	2.37 .89	1.40	.82
15. Willing to modify teaching style for part time LD students	2.02 .79	1.94 .89	2.07 .74	.06	.39
16. Willing to modify teaching style for (FT) LD students.	2.64 2.49	2.13 .92	2.95 4.25	.73	.29

Table 13 (continued)

Adaptations

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
17. Not willing to adapt curriculum for part time LD students.	3.69 1.25	4.10 1.97	3.46 1.17	.00	.03*
18. Not willing to adapt curriculum for full time LD students.	3.69 1.07	3.55 1.07	3.79 1.07	.23	.29
19. Not willing to adapt grading policy for part time LD students.	3.52 1.14	3.38 1.16	3.61 1.11	.64	.38
20. Not willing to adapt grading policy for (FT) LD students.	3.43 1.18	3.35 1.16	3.48 1.19	.01	.75

*p<.05

Training

Frequency distributions mean scores, and standard deviations were calculated for the 8 Likert scale items relating to the training of teachers and their perceptions of their ability to effectively teach LD students in the inclusive classroom. The items were ranked on a five point scale as follows: 1= strongly agree, 2=agree, 3=undecided, 4=disagree, and 5=strongly agree. For items 23-26, a scale of 6 equaled not applicable. Overall total ratings on the five point Likert scale ranged from a high mean score of 3.81 to a low mean score of 1.89 on the 8 items dealing with training. This is taking into consideration all four variables of location, grade taught, gender, and years of experience.

Responses for each of the eight items on training were disaggregated by location, grade taught, gender and experience as represented by Tables 14 -19. For the most part the mean scores for survey questions relating to training appear to have a fairly consistent range of mean scores among the groups.

Table 14 reports disaggregated data by geographic location as it pertains to items 21-28 which deal with training. Data in table 14 show that, rural educators had higher mean scores in six out of the eight items listed as compared with the urban/suburban group. Higher mean scores for rural educators were shown in items 21 (2.93), 22 (3.07), 25 (3.56), 26 (3.59), 27 (1.93) and 28 (2.09). These items dealt with teachers having sufficient training and more confidence teaching LD students part time or full time.

Rural educators had lower mean scores for items 23 (3.42) and 24 (3.66) as compared with the urban/suburban group for the same items. Items 23 and 24 dealt with having inadequate training to teach LD students full time or part time. Because of the

nature of the statement for items 23 and 24, the responses of the rural teachers could mean that the rural teachers either disagreed with the statement; they had inadequate training, or would be unwilling to get more training. A *t*-test revealed no statistical significance between the eight training items listed.

Table 14

*Training**Variable: Geographic Location*

Survey Statements	Total Sample (n=261)	Rural Teachers	Urban/Suburban Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
21. Have sufficient training to help integrate LD students part time.	2.89 1.19	2.93 1.20	2.82 1.19	.04	.49
22. Have sufficient training to integrate LD students (FT).	3.07 1.28	3.07 1.25	3.05 1.32	.89	.90
23. Have inadequate training, willing to receive more to teach LD students (PT).	3.53 1.76	3.42 1.71	3.68 1.83	2.38	.24
24. Have inadequate training, willing to receive more to teach LD students (FT).	3.81 1.72	3.66 1.66	4.02 1.79	3.19	.10

Table 14 (continued)

*Training**Variable: Geographic Location*

Survey Statements	Total Sample (n=261)	Rural Teachers	Urban/Suburban Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
25. More confidence to teach LD PT if had more LD classes.	3.44 1.795	3.56 1.80	3.27 1.78	.58	.21
26. More confidence to teach LD students FT if had more LD classes.	3.53 1.72	3.59 1.75	3.44 1.69	.88	.47
27. All teachers teaching LD students PT should have training.	1.89 .87	1.93 .84	1.83 .03	1.03	.40
28. All teachers teaching LD students FT should have training	2.08 1.70	2.09 2.05	2.05 1.10	.11	.85

Tables 15 and 16 have disaggregated data for items 21-28 by grade taught as it pertains to training items listed on the survey instrument. Data from table 15 show that ninth grade educators had higher mean scores for 5 out of the eight items listed as compared to the 10th grade teachers concerning the same items. These include items 23 (3.63), 25 (3.53), 26 (3.57), 27 (1.93), and 28 (2.43). Items 23, 25, and 26 centered on teachers having inadequate training to teach LD students and their confidence levels to do so. Table 15 shows a statistical significance in item 27 which dealt with all teachers teaching LD students needing to have some training in the area.

Table 16 shows that the 12 grade teachers had higher mean scores for items 21 (2.93), 22 (3.09), 27 (2.03), and 28 (2.00) as compared with the 11th grade teachers for the same items. The 11th grade educators scored higher with items 23 (3.60), 24 (3.80), 25 (3.52) and 26 (3.62). Twelfth grade teachers responded as having more training to help integrate LD students in regular classes. Eleventh grade educators had low means of 1.95 for item 27 and 1.88 for item 28 as compared to the 12th grade teachers. These items dealt with the notion that all teachers who teach LD students need training. A *t*-test revealed no statistical significance between the survey items.

Table 15

*Training**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
21. Have sufficient training to help integrate LD students part time.	2.86 1.19	2.84 1.11	3.00 1.21	.99	.45
22. Have sufficient training to integrate LD students (FT).	3.07 1.28	3.04 1.37	3.18 1.24	.73	.57
23. Have inadequate training, willing to receive more to teach LD students (PT).	3.53 1.76	3.63 1.83	3.51 1.94	.79	.72
24. Have inadequate training, willing to receive more to teach LD students (FT).	3.81 1.72	3.84 1.82	3.89 1.84	.01	.87

Table 15 (continued)

Training

Variable: Grade Taught

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
25. More confidence to teach LD PT if had more LD classes	3.44 1.795	3.53 1.87	3.53 1.88	.01	1.00
26. More confidence to teach LD students FT if had more LD classes.	3.53 1.72	3.57 1.82	3.54 1.75	.32	.93
27. All teachers teaching LD students PT should have training.	1.89 .87	1.93 .95	1.61 .59	.51	.03*
28. All teachers teaching LD students FT should have training.	2.08 1.70	2.43 2.85	1.96 1.15	2.18	.25

*p<.05

Table 16

*Training**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
21. Have sufficient training to help integrate LD students part time.	2.89 1.19	2.78 1.21	2.93 1.25	.01	.51
22. Have sufficient training to integrate LD students (FT).	3.07 1.28	2.98 1.15	3.09 1.35	3.51	.64
23. Have inadequate training, willing to receive more to teach LD students (PT).	3.53 1.76	3.60 1.73	3.38 1.57	3.00	.44
24. Have inadequate training, willing to receive more to teach students (FT).	3.81 1.72	3.80 1.61	3.72 1.63	.00	.79

Table 16 (continued)

Training

Variable: Grade Taught

Survey Statements	Total Sample (n=261)		11 th Grade Teachers		12 th Grade Teachers		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
25. More confidence to teach LD (PT) if had more LD classes	3.44 1.79		3.52 1.78		3.20 1.67		1.02	.28
26. More confidence to teach LD students (FT) if had more LD classes.	3.53 1.72		3.62 1.71		3.39 1.63		.56	.44
27. All teachers teaching LD students PT should have training.	1.89 .87		1.95 .73		2.03 1.07		8.57	.64
28. All teachers teaching LD students FT should have training.	2.08 1.70		1.88 .80		2.00 1.00		2.41	.44

Table 17 reports disaggregated data for items 21-28 by gender as it pertains to the training items listed on the survey instrument. Data show that males had higher mean scores for three out of eight items dealing with training. Their mean scores ranged from a high of 3.52 (item 24) to a low of 1.95 (item 27). The males scored higher on items 21 (3.05) and 22 (3.32) in comparison with the female teachers for the same items. Items 21 and 22 dealt with teachers having sufficient training to teach LD students in the regular classroom. Females, according to the data felt their training was sufficient which gave them more confidence. The females had higher mean scores for items 23 (3.57) and 24 (4.01) which dealt with teachers having insufficient training to teach LD students. The female group also had higher mean scores for items 25 (3.52), 26 (3.54), and 28 (2.17) as compared to the males for the same items. These items had means of 3.52, 3.54 and 2.17 respectively.

A *t*-test revealed a statistical significance in items 22 and 24. Item 24 dealt with having sufficient training while item 23 dealt with insufficient training.

Table 17

*Training**Variable: Gender*

Survey Statements	Total Sample (n=261)	Male Teachers	Female Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
21. Have sufficient training to help integrate LD students part time.	2.89 1.19	3.04 1.10	2.77 1.25	4.65	.07
22. Have sufficient training to integrate LD students full time.	3.07 1.28	3.32 1.19	2.89 1.31	1.77	.01*
23. Have inadequate training, but willing to receive more to teach LD students (PT).	3.53 1.76	3.42 1.67	3.57 1.82	3.88	.50
24. Have inadequate training, but willing to receive more to teach LD students (FT).	3.81 1.72	3.52 1.62	4.01 1.76	3.58	.03*

*p<.05

Table 17 (continued)

Training

Variable: Gender

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
25. More confidence to teach LD PT if had more LD classes	3.44 1.79	3.52 1.78	3.20 1.67	1.02	.28
26. More confidence to teach LD students FT if had more LD classes.	3.53 1.72	3.62 1.71	3.39 1.63	.56	.44
27. All teachers teaching LD students PT should have training.	1.89 .87	1.95 .73	2.03 1.07	8.57	.64
28. All teachers teaching LD students FT should have training.	2.08 1.70	1.88 .80	2.00 1.00	2.41	.44

Tables 18 and 19 report disaggregated data for items 21-28 by years of experience as it pertains to items centered on training. As shown in table 18, the 6-10 group has higher mean scores for five out of eight items. The 6-10 group had mean scores to range from a high of 3.75 (item 24) to a low of 1.84 (item 27) while the 0-5 group had a high mean score of 3.6508 (item 26) and a low mean score of 1.75 (item 27). The 6-10 group tended to have higher mean scores on items dealing with sufficient training as well as inadequate training.

Table 19 shows that the 16+ group scored higher in seven out of the eight items listed as compared to the 11-15 group for the same items. The 16+ group responded more favorably to sufficient training items addressed in items 21 (3.04) and 22 (3.15) as well as 23 (3.75) and 24 (4.15) having insufficient training as compared to the 11-15 teachers. The data in table 19 also show that the 16+ group also had higher mean scores for items 25 (3.65), 26 (3.66), and 28 (2.25) in comparison with the 11-15 teacher group for the same items. Items 25 and 26 indicate that both the 11-15 and the 16+ teachers were undecided as to whether or not their confidence to teach LD students in the regular classroom would be better had they had more undergraduate classes dealing with learning disabled students.

Overall for all groups, the highest means scores were shown to be in items 23 and 24. A *t*-test revealed a statistical significance for item 28 (table 18) which dealt with all teachers needing training if they are to teach LD students in the inclusive classroom.

Table 18

*Training**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
21. Have sufficient training to help integrate LD students (PT).	2.89 1.19	2.86 1.19	2.68 1.69	.01	.40
22. Have sufficient training to integrate LD students (FT).	3.07 1.28	2.97 1.37	3.04 1.23	1.04	.31
23. Have inadequate training, willing to receive more to teach LD students (PT).	3.53 1.76	3.32 1.73	3.46 1.83	.92	.64
24. Have inadequate training, willing to receive more to teach LD students (FT).	3.81 1.72	3.44 1.72	3.75 1.74	.26	.30

Table 18 (continued)

*Training**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
25. More confidence to teach LD PT if had more LD classes	3.44 1.79	3.46 1.88	3.17 1.59	6.76	.33
26. More confidence to teach LD students FT if had more LD classes.	3.53 1.72	3.65 1.80	3.42 1.66	.24	.44
27. All teachers teaching LD students PT should have training.	1.89 .87	1.75 .74	1.84 .75	.22	.45
28. All teachers teaching LD students FT should have training.	2.08 1.70	1.76 .82	2.18 1.19	2.16	.02*

Table 19

*Training**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
21. Have sufficient training to help integrate LD students (PT).	2.89 1.19	2.97 1.35	3.04 1.15	1.25	.73
22. Have sufficient training to integrate LD students (FT).	3.07 1.28	3.10 1.30	3.15 1.26	.01	.83
23. Have inadequate training, willing to receive more to teach LD students (PT).	3.53 1.76	3.48 1.84	3.75 1.70	.43	.47
24. Have inadequate training, willing to receive more to teach LD students (FT).	3.81 1.72	3.71 1.83	4.15 1.61	1.07	.20

Table 19 (continued)

Training

Variable: Years of Experience

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
25. More confidence to teach LD (PT) if had more LD classes	3.44 1.79	3.45 2.05	3.64 1.80	2.71	.61
26. More confidence to teach LD students FT if had more LD classes.	3.53 1.72	3.16 1.66	3.66 1.74	.97	.17
27. All teachers teaching LD students PT should have training.	1.89 .87	2.03 1.11	1.99 .97	.66	.42
28. All teachers teaching LD students FT should have training.	2.08 1.70	1.97 .95	2.24 2.52	1.12	.29

Teacher Efficacy and Instruction

Frequency distributions mean scores, and standard deviations were calculated for the 3 Likert scale items relating to ability of teachers to teach LD students in the inclusive classroom. The items were ranked on a six point scale as follows: 1= strongly agree, 2= moderately agree, 3= agree slightly more than disagree, 4=disagree slightly more than agree, 5=moderately disagree, and 6= strongly disagree. Overall total ratings on the six point Likert scale ranged from a high mean score of 4.37 to a low mean score of 2.34 on the 3 items dealing with teacher efficacy and instruction.

Responses for each of the three items on teacher efficacy and instruction were disaggregated by location, grade taught, gender and experience as represented by Tables 20-25. For the most parts the mean scores for survey questions relating to teacher efficacy and instruction, appear to be fairly consistent among the groups.

Table 20 reports disaggregated data for items 5, 9, and 10 by location as it pertains to the topic of efficacy and instruction. Rural educators had higher mean scores in two out of the three items listed. Rural educators had higher means of 4.41 (item 10) and 2.76 8 (item 5) as compared with the urban/suburban group for the same items. Items 5 and 10 dealt with parents doing more so the teacher could do more and how motivation is affected by the student's home/environment. The urban/suburban group had high means of 4.32 (item 10) and 2.49 (item 5). No statistical significance was found in the items.

Table 20

*Efficacy: Instruction**Variable: Geographic Location*

Survey Statements	Total Sample (n=261)	Rural Teachers	Urban/Suburban Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
5. If parents did more, I could do more	2.64 1.30	2.76 1.36	2.49 1.21	.71	.10
9. If I try hard, I can reach most difficult students	2.34 1.07	2.30 1.09	2.37 1.03	.01	.64
10. Teachers cannot do much because a student's motivation is based on home/environment.	4.37 1.36	4.41 1.32	4.32 1.43	.93	.62

Tables 21 and 22 report disaggregated data for items 5, 9, and 10 by grade taught as it pertains to efficacy and instruction. The data in table show that the 10th grade teachers had higher mean scores for two out of the three items listed as compared with the 9th grade teachers. Tenth grade teachers had high means for items 9 (2.53) and 10 (4.49) in comparison to the 9th grade teaches who had a high mean for item 5(2.74). The 12th grade teachers had higher mean scores for all three out of three items listed. Twelfth grade means scores for items 5, 9, and 10 were 2.71, 2.25, and 4.26 respectively while the 11th grade teachers had means of 2.55, 2.22, and 4.25 respectively. A *t*-test revealed no statistical significance between the three items listed.

Table 21

*Efficacy: Instruction**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
5. If parents did more, I could do more	2.64 1.30	2.74 1.23	2.54 1.37	.70	.39
9. If I try hard, I can reach most difficult students	2.34 1.07	2.39 1.18	2.53 1.15	.13	.50
10. Teachers cannot do much because a student's motivation is based on home/environment.	4.37 1.36	4.49 1.32	4.49 1.10	.95	.98

Table 22

*Efficacy: Instruction**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
5. If parents did more, I could do more	2.64 1.30	2.55 1.23	2.71 1.38	.96	.49
9. If I try hard, I can reach most difficult students	2.34 1.07	2.21 .90	2.25 1.01	.29	.85
10. Teachers cannot do much because a student's motivation is based on home/environment.	4.37 1.36	4.25 1.38	4.26 1.58	1.94	.95

Table 23 reports disaggregated data for items 5, 9, and 10 on gender as it pertains to efficacy and instruction. Males had higher mean scores in item 9 (2.35) and 10 (4.30) as compared with females responses to the same items. These items dealt with feeling able to reach difficult students and the impact the home/environment has on student motivation. Females had a higher mean score for item 5 (2.64) which dealt with parents doing more so teachers could do more in the classroom. A *t*-test revealed no statistical significance between the items.

Table 23

*Efficacy: Instruction**Variable: Gender*

Survey Statements	Total Sample (n=261)	Male Teachers	Female Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
5. If parents did more, I could do more.	2.64 1.30	2.61 1.26	2.68 1.33	.42	.67
9. If I try hard, I can reach most difficult students.	2.34 1.07	2.35 1.09	2.34 1.06	.15	.94
10. Teachers cannot do much because a student's motivation is based on home/environment.	4.37 1.36	4.30 1.42	4.43 1.30	.60	.46

Tables 24 and 25 report disaggregated data for items 5, 9, and 10 by years of experience for efficacy and instruction. The 0-5 group had high mean scores for three out of the three items listed as compared with the 6-10 group for the same items. Mean scores for the 0-5 group ranged from a high of 4.24 (item 10) to a low of 2.51 (item 9) while the 6-10 group had a high mean of 4.42 (item 10) and a low mean of 2.33 (item 9). Mean scores for the 0-5 and 6-10 groups were similar in all three items. This could indicate that both groups feel that the ability of the teacher to teach is dependent upon what happens in the student's home and parental involvement.

Table 25 shows that the 11-15 group scored higher on all three items listed as compared with the 16+ group of teachers. Their highest mean score was 4.61 while their lowest mean score was 2.39. The higher mean scores were for the items that dealt with the amount a teacher can accomplish while taking into consideration difficult students, parents and home environments.

A *t*-test revealed no statistical difference between the mean items.

Table 24

*Efficacy: Instruction**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
5. If parents did more, I could do more	2.64 1.30	2.54 1.12	2.54 1.31	.97	1.00
9. If I try hard, I can reach most difficult students	2.34 1.07	2.51 1.16	2.33 .99	3.05	.32
10. Teachers cannot do much because a student's motivation is based on home/environment.	4.37 1.36	4.24 1.31	4.46 1.40	.96	.43

Table 25

Efficacy: Instruction

Variable: Years of Experience

Survey Statements	Total Sample (n=261)		11-15 Years		16+ Years		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
5. If parents did more, I could do more	2.64 1.30		2.80 1.40		2.75 1.38		.09	.84
9. If I try hard, I can reach most difficult students	2.34 1.07		2.39 .99		2.21 1.10		.04	.42
10. Teachers cannot do much because a student's motivation is based on home/environment.	4.37 1.36		4.61 1.31		4.33 1.39		.67	.32

Teacher Efficacy and Student Engagement

Frequency distributions mean scores, and standard deviations were calculated for the 3 Likert scale items relating to the ability of teachers to discipline, motivate, and redirect students in the inclusive classroom setting. The items were ranked on a six point scale as follows: 1= strongly agree, 2= moderately agree, 3=agree slightly more than disagree, 4=disagree slightly more than agree, 5=moderately disagree, and 6= strongly disagree. Overall, total ratings on the six point Likert scale ranged from a high mean score of 3.34 to a low mean score of 2.27 on the three items dealing with the teachers' ability to reach difficult students and to discipline them if warranted.

Responses for each of the eight items on adaptations were disaggregated by location, grade taught, gender and experience as represented by Tables 26-31. Overall, the mean scores for survey questions relating to efficacy and student engagement appear to be fairly consistent among the groups in the eight items listed.

The disaggregated data for items 2, 3, and 4 by geographic location as it pertains to efficacy and student engagement are reported in Table 26. Urban/suburban students had higher mean scores for two out of three items listed. The mean score ranged from a high of 3.06 (item 2) to a low of 2.34 (item 3) for the urban/suburban group while the rural group had a high mean of 3.57 (item 4) and a low of 2.21 (item 3). Mean scores tended to be high for items 2 and 4 for both the rural (3.00 and 3.57) and urban/suburban (3.06 and 3.05) groups. Items 2 and 4 dealt with discipline at home and difficult students in the classroom. A *t*-test revealed no statistical difference between mean items listed.

Table 26

*Efficacy: Student Engagement**Variable: Geographic Location*

Survey Statements	Total Sample (n=261)	Rural Teachers	Urban/Suburban Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
2. If students are not disciplined at home they are unlikely to accept teacher discipline.	3.02 1.53	3.00 1.53	3.06 1.53	.00	.74
3. When I really try hard, I can reach most difficult students.	2.27 .94	2.21 .95	2.34 .91	.09	.27
4. A teacher is limited in what she can do because of influences of home environment on student achievement.	3.34 2.88	3.57 3.61	3.05 1.42	.59	.15

Tables 27 and 28 report disaggregated data for items 2, 3, and 4 on grade taught as it pertains to items on efficacy and student engagement. Table 28 shows that tenth grade educators had higher mean scores for item 2 (3.26) and 4 (4.16) in comparison with 9th grade teachers for the same items. The 9th grade educators scored the highest on item 3 with a mean score of 2.24.

Table 28 shows that 12th grade educators had higher mean scores for items 3 (2.35) and 4 (3.19) in comparison with 11th grade teachers for the same items. Eleventh grade educators had a high mean of 2.86 for item 2 which dealt with discipline and the home.

A *t*-test revealed no statistical significance within mean items.

Table 27

*Efficacy: Student Engagement**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
2. If students are not disciplined at home they are unlikely to accept teacher discipline.	3.02 1.53	3.16 1.54	3.26 1.58	.16	.70
3. When I really try hard, I can reach most difficult students.	2.27 .94	2.24 .98	2.21 .86	.53	.84
4. A teacher is limited in what she can do because of influences of home environment on student achievement.	3.34 2.88	2.98 1.24	4.16 5.53	.83	.09

Table 28

*Efficacy: Student Engagement**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
2. If students are not disciplined at home they are unlikely to accept teacher discipline.	3.02 1.53	2.86 1.45	2.83 1.53	.44	.89
3. When I really try hard, I can reach most difficult students.	2.27 .94	2.28 .88	2.35 1.01	.143	.67
4. A teacher is limited in what she can do because of influences of home environment on student achievement.	3.34 2.88	3.15 1.46	3.19 1.51	.59	.99

Table 29 reports disaggregated data for items 2, 3, and 4 for gender as it relates to efficacy and student engagement. Females scored higher mean scores for two out of the three items listed. These items had a high mean of 3.14 for item 2 and 3.44 for item 4 in comparison with the males for the same items. The male remained consistent with means score of 2.85 for item 2 and 2.48 for item 3. Item 4 was high for both the females and males with mean scores of 3.44 and 3.24 respectively.

A *t*-test revealed a statistical significance in the means score of item 3 which dealt with reaching difficult students.

Table 29

*Efficacy: Student Engagement**Variable: Gender*

Survey Statements	Total Sample (n=261)		Male Teachers		Female Teachers		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
2. If students are not disciplined at home they are unlikely to accept teacher discipline.	3.02 1.53		2.85 1.48		3.14 1.54		.83	.13
3. When I really try hard, I can reach most difficult students.	2.27 .94		2.48 .96		2.12 .89		1.55	.00*
4. A teacher is limited in what she can do because of influences of home environment on student achievement.	3.34 2.88		3.24 1.39		3.44 3.56		1.06	.59

*p<.05

Tables 30 and 31 report disaggregated data for items 2, 3, and 4 for the variable dealing with years of experience. The items of 2, 3, and 4 pertain to efficacy and student engagement. In the 6-10 group, mean scores were highest in all three item listed as compared with the 0-5 group whose mean scores were consistent for all three items.

Table 31 shows that the 16+ group had higher mean scores for two out of the three items listed as compared to the 11-15 group. Overall, the 11-15 group had the highest mean score of 4.39 for all groups. This item dealt with the educators' perception of teachers being limited in what they can do in the classroom because of the effects the home/environment has on student achievement.

A *t*-test revealed no statistical difference in mean scores between the items listed.

Table 30

*Efficacy: Student Engagement**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)		0-5 Years		6-10 Years		SIG	
	Mean (Std. Dev.)		Mean (Std. Dev.)		Mean (Std. Dev.)		F	P
2. If students are not disciplined at home they are unlikely to accept teacher discipline.	3.02 1.53		2.87 1.30		3.04 1.55		3.46	.50
3. When I really try hard, I can reach most difficult students.	2.27 .94		2.30 .94		2.41 .88		.02	.49
4. A teacher is limited in what she can do because of influences of home environment on student achievement.	3.34 2.88		2.94 1.26		3.34 1.47		5.12	.09

Table 31

*Efficacy: Student Engagement**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
2. If students are not disciplined at home they are unlikely to accept teacher discipline.	3.02 1.53	3.06 1.48	3.09 1.67	1.18	.95
3. When I really try hard, I can reach most difficult students.	2.27 .94	2.16 .82	2.18 1.01	.06	.94
4. A teacher is limited in what she can do because of influences of home environment on student achievement.	3.34 2.88	4.39 .74	3.27 1.46	4.08	.18

Teacher Efficacy and Classroom Management

Frequency distributions mean scores, and standard deviations were calculated for the four Likert scale items relating to teachers' ability to help LD students achieve in the inclusive classroom by redirecting them when they are off task, increasing student retention rates, and by assessing the level of difficulty for classroom assignments.

The items were ranked on a six point scale as follows: 1= strongly agree, 2= moderately agree, 3=agree slightly more than disagree, 4=disagree slightly more than agree, 5=moderately disagree, and 6= strongly disagree. Overall, total ratings on the six point Likert scale ranged from a high mean score of 3.97 to a low mean score of 1.94 on the four items dealing with the teachers' ability to teach LD students in the inclusive classroom.

Responses for each of the four items on teacher efficacy and classroom management were disaggregated by location, grade taught, gender and experience as represented by Tables 26-31. For the most parts the mean scores for survey items relating to teacher efficacy and classroom management appear to be fairly consistent among the groups.

Table 32 reports disaggregated data for items 1, 6, 7, and 8 by geographic location as it pertains to efficacy and classroom management. Urban/suburban teachers had higher mean score for 3 out of the four items listed in comparison to the rural teachers for the same items listed. The means scores for the urban/suburban teachers ranged from high of 3.93 for item 1 to a low of 1.95 for item 7. For the rural educators, their highest mean score was 4.00 for item 1 and the lowest was 1.93 for item 8.

Table 32

*Efficacy: Classroom Management**Variable: Geographic Location*

Survey Statements	Total Sample (n=261)	Rural Teachers	Urban/Suburban Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Student achievement is related to family background.	3.97 1.60	4.00 1.60	3.93 1.63	.51	.72
6. I know how to increase student retention if a student fails to remember a lesson.	2.41 .99	2.39 1.01	2.43 .97	.03	.73
7. I know how to redirect noisy students.	1.94 .81	1.93 .85	1.95 .76	1.28	.89
8. I know how to access the level of difficulty of a assignment if a student has a problem.	1.98 .83	1.94 .83	2.04 .84	.80	.36

Tables 33 and 34 report disaggregated data for items 6, 7, and 8 for grade taught as it pertains to efficacy and classroom management. Table 33 shows that both the 9th and 10th grade educators had a high mean scores on two out of the four items listed. Ninth grade educators scored a mean of 3.90 on item 1 in comparison to the 10th grade educators who scored a mean of 4.47 for the same item. Tenth grade teachers also had a higher mean score for item 6 (2.47) in comparison with the 9th grade teachers for the same item. Ninth grade teachers had a higher mean for items 7 (1.90) and 8 (2.04) as compared with the 10th grade teachers for the same items.

Table 34 shows that the 11th grade teachers generated higher mean scores for two out of the four items listed as compared with the 12th grade teachers. Eleventh grade teachers had higher mean scores for items 6 (2.46) and 7(2.00) in comparison to 12 grade teachers. Twelfth grade teachers had higher means for items 1 (3.81) and 8 (2.00) as compared with the 11th grade teachers.

Table 33 shows that a *t*-test revealed a statistical significance in item 1 which dealt student academic achievement and family background.

Table 33

*Efficacy: Classroom Management**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	9 th Grade Teachers	10 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Student achievement is related to family background.	3.97 1.60	3.90 1.67	4.47 1.45	2.82	.04*
6. I know how to increase student retention if a student fails to remember a lesson.	2.41 .99	2.37 .95	2.47 .98	.11	.55
7. I know how to redirect noisy students.	1.94 .81	1.90 .80	1.89 .75	.41	.97
8. I know how to access the level of difficulty of a assignment if a student has a problem.	1.98 .83	2.04 .91	1.91 .76	.52	.50

*p<.05

Table 34

*Efficacy: Classroom Management**Variable: Grade Taught*

Survey Statements	Total Sample (n=261)	11 th Grade Teachers	12 th Grade Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Student achievement is related to family background.	3.97 1.60	3.78 1.53	3.81 1.68	.47	.92
6. I know how to increase student retention if a student fails to remember a lesson.	2.41 .99	2.46 1.09	2.35 .97	1.19	.52
7. I know how to redirect noisy students.	1.94 .81	2.00 .87	1.96 .81	.06	.77
8. I know how to access the level of difficulty of an assignment if a student has a problem.	1.98 .83	1.98 .87	2.00 .77	.26	.91

Table 35 reports disaggregated data for items 1, 6, 7, and 8 for gender as it relates to efficacy and classroom management. Males scored higher on four out of the four items listed as compared to the females. Male mean scores ranged from a high of 4.00 for item 1 to a low of 1.98 for item 8. The females had a high mean score of 3.99 for item 1 and a low of 1.89 for item 7. Overall, in comparison to the males, the females' scores were consistently lower. In both the male and female responses, the means decreased proportionally from items 1 and item 8.

A *t*-test revealed no statistical significance in means scores for the items listed.

Table 35

*Efficacy: Classroom Management**Variable: Gender*

Survey Statements	Total Sample (n=261)	Male Teachers	Female Teachers	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Student achievement is related to family background.	3.97 1.60	4.00 1.51	3.99 1.66	1.44	.95
6. I know how to increase student retention if a student fails to remember a lesson.	2.41 .99	2.47 1.08	2.35 .93	4.26	.36
7. I know how to redirect noisy students.	1.94 .81	2.01 .87	1.89 .75	.97	.24
8. I know how to access the level of difficulty of a assignment if a student has a problem.	1.98 .83	1.98 .80	1.98 .85	.40	1.00

Tables 36 and 37 report disaggregated data for items 1, 6, 7, and 8 for years of experience as it pertains to efficacy and classroom management. Table 36 shows that the 0-5 group had higher mean score for all four items listed as compared with the 6-10 group. The 0-5 means ranged from a high of 3.92 for item 1 to a low of 2.11 for item 7. The 6-10 group had a high mean of 2.30 for item 6 which was close to the mean score for the 0-5 group for the same item.

Table 37 shows that the 16+ group had higher mean scores for three out of the four items listed as compared to the 11-15 group. Their means ranged from a high of 3.85 for item 1 to a low of 1.87 for item 7. Overall the 11-15 group had the highest mean of 4.03 for item 1 which was the highest for all the groups

A *t*-test revealed a statistical significance between mean scores for item 6 (Table 36) which dealt the ability of the teacher to increase student retention.

Table 36

Efficacy: *Classroom Management**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	0-5 Years	6-10 Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Student achievement is related to family background.	3.97 1.60	3.92 1.42	1.45 1.54	1.02	.38
6. I know how to increase student retention if a student fails to remember a lesson.	2.41 .99	2.70 1.01	2.30 .98	.10	.02*
7. I know how to redirect noisy students.	1.94 .81	2.11 .95	1.95 .75	4.75	.26
8. I know how to access the level of difficulty of an assignment if a student has a problem.	1.98 .83	2.21 .83	1.88 .80	1.18	.02

*p<.05

Table 37

*Efficacy: Classroom Management**Variable: Years of Experience*

Survey Statements	Total Sample (n=261)	11-15 Years	16+ Years	SIG	
	Mean (Std. Dev.)	Mean (Std. Dev.)	Mean (Std. Dev.)	F	P
1. Student achievement is related to family background.	3.97 1.60	4.03 1.72	3.85 1.75	.12	.61
6. I know how to increase student retention if a student fails to remember a lesson.	2.41 .99	2.23 .80	2.36 1.03	2.28	.50
7. I know how to redirect noisy students.	1.94 .81	1.77 .67	1.87 .77	.42	.55
8. I know how to access the level of difficulty of an assignment if a student has a problem.	1.98 .83	1.84 .77	1.96 .86	2.69	.50

Qualitative Data Analysis for Telephone Interviews

Six secondary teachers were interviewed via telephone. The participants consisted of two teachers from rural, urban, and suburban locations. The gender of the participants included three males and three females. The interviews, on average, lasted about 1 hour and ten minutes per session. All of the teachers followed the general format of the interview process as it was conducted by the researcher.

Figure 1 exhibits code mapping for teacher attitudes and inclusion. Beginning at the bottom of the schema in the first tier in figure 1, the initial codes are listed. These were the thoughts that were conveyed by the teachers as they related to the questions on teacher efficacy and teacher attitudes. The researcher took into account that many of the transcribed codes could fit into different variables that went to make up the pattern variables.

The second tier of the schema in figure 1 exhibits the pattern variables that were taken from the initial codes. The pattern variables were selected to represent an overall depiction of the initial codes. This was done by analyzing the codes to put the thoughts into one variable that would be representative of what the teachers were conveying. In selecting the pattern variables, the researcher wanted to match the variables with the variable from the original on-line survey.

Qualitative data gathered from the telephone interviews concluded that teachers have varying opinions and attitudes concerning inclusion. Some secondary teachers favor inclusion because of the academic and social opportunities offered to students. On the other side, some secondary teachers see inclusion as a construct that does not work for all

students. These teachers were more inclined to think of inclusion as a construct that had been thrust upon them without their input.

Figure 1

Code Mapping: (to be read from bottom up)

CODE MAPPING FOR TEACHER ATTITUDES AND INCLUSION

(Research Questions 1, and 2a)

RQ 1: Relationship Between Teacher Attitudes and Efficacy

1a. Factors Influencing Relationship Between
Teacher Attitudes and Efficacy

SECOND ITERATION: PATTERN VARIABLES

Beliefs/Opinions

Modification of Teaching Style

FIRST ITERATION: INITIAL CODES/SURFACE CONTENT ANALYSIS

efficacy
attitudes
avoidance
denial
distrust/fear
confidence
territorial

accountability
student interests
collaboration/collegiality
administrative support
competence
adaptations
inclusion/mainstreaming construct

Pattern Variable 1: Beliefs/Opinions

The questions from the telephone interview that generated data related to the pattern variable of beliefs/opinions (see figure 1) were questions 1 and 5. Question 1 asked respondents, overall, how they felt about mainstreaming/inclusion. The prompt to number 1 read as: Have you had experience with inclusion? Do you think inclusion provides the best educational opportunity for all students? Why or why not? The responses given were a mixture of beliefs and opinions that ranged from the positives of inclusion to a negative remark that “inclusion is being thrust upon us because administrators are too weak to say no to parents.”

Teacher A, a math 9 teacher in a city school, has 15 years of experience in the classroom. His response to interview question one centered on the belief that inclusion works for some students and not all students. He mentioned that if he had his way that the more challenged students would be taught in separate academic classes. This, in his mind, was the best way to teach math to students who need extra help.

Teacher B, a female English 12 teacher in a city school with 12 years of experience had a similar response to interview question one. Teacher B repeatedly reminded the researcher of her years of experience in the mainstream classroom. She commented about her past fears and apprehension of having to teach students that “required” a lot of help. In order to gain more confidence, Teacher B remarked that she had to change her attitude toward the construct of inclusion. She adamantly believes that inclusion is not for everyone, but it is great for those students capable of being in a regular academic setting. Not to be misunderstood, Teacher B made it plain that there are benefits to inclusion such as the exposure to the regular curriculum with it different

learning opportunities. Teacher B is convinced that there is a socialization aspect to inclusion that is good for all students.

Teacher C, a female 11th grade social studies teacher in a rural school system, has 25 years of experience in the classroom. When questioned about her feelings about inclusion/mainstreaming, Teacher C replied that she has experience with inclusion. She remarked that inclusion is fine if it is used the ‘right way.’ When asked to elaborate, Teacher C stated that schools cannot expect all students to be successful in the regular classroom and, therefore; should not expect all students to be in the regular classroom. There are situations where students need to be in separate, special classes. They would have the opportunity to be with professionals who know how to help them learn.

Teacher C also commented that schools are forced to include any student who wants to be in the regular classroom setting and this does more harm than good. She ended her comment by remarking that: “I personally can teach any child as long as I know what to expect from them academically.”

Responses to interview question number 1 from Teacher D was different from what the responses were for teachers A, B, and C who were in favor of inclusion as long as the students were placed there according to their ability to handle the regular classroom curriculum. Teacher D, a male rural teacher of math who has 22 years of teaching experience, started the interview by stating that: “inclusion/mainstreaming is the law and it does not really matter how he feels because it is the law.” After a little more prompting for specifics, Teacher D stated that he understood that all kids deserve equal chances, but “schools are trying to fit too many square pegs into round holes.” He went on to state that he has experience with inclusion and some of it has been positive, but he has always felt

that certain students did not belong in his math classes just because the “law” said so. Teacher D remarked that school administrators needed to listen to teachers because teachers are the ones that know what is best for students and not federal or state lawmakers. He finished by saying that trying to please everyone is why schools are failing to meet the academic needs of other students because teachers in inclusion classes have to “dummy down” lessons which leave little or not time for creativity. A final statement by teacher D was: “Inclusion is not the best approach for all students because there are special classes and programs designed specifically for students who need more assistance with learning.”

Of all of the responses received during the interview sessions pertaining to interview question number 1, Teachers E and F were the most positive. Teacher E is a female suburban business teacher with three years of teaching experience. Teacher F is a suburban male English 9 teacher with 10 years of teaching experience. Both teachers work in large suburban areas about 200 miles apart of each other, yet their view points were similar in nature.

Teacher E who teaches business classes to freshman students felt that inclusion was a great idea because it afforded all students equal opportunities. Teacher E stated that with the business classes, especially keyboarding skills, that all students need to have command of basic typing skills and to deny certain students this class just because of their special needs was ‘unacceptable.’ Teacher E noted that she does have limited experience with inclusion, but she still felt that all students could benefit from being exposed to the regular curriculum. Teacher E also noted that Business classes are different from the more rigorous academic classes and that those teachers have concerns

that she does not have. All in all, though, she felt that inclusion provided the best opportunities for all students.

Teacher F, a male suburban English 9 teacher with 10 years of experience also felt that inclusion provided the best educational opportunities for all students. He mentioned the academic benefits as well as the social benefits of exposing all students to the regular curriculum. Teacher F noted that English 9 is a hard course for students because it is filled with literature, usage, and the mechanics of grammar, but it is an area that students must have adequate knowledge when communicating either through verbal or written expression. Teacher C stated that use of technology and the mechanical software has helped the “slower” students to grasp grammatical concepts that he has problems teaching. All in all, Teacher F felt that inclusion offered numerous possibilities if teachers were willing to “go the extra mile.”

Interview question 5 asked: Do you think a teacher who has a great deal of confidence in his/her teaching can accommodate disabled students in an inclusion model to a greater degree than one who is not so confident? Prompt: Would you explain why? Responses to question 5 were as varied as the responses to question 1. Six teachers felt that any teacher who is confident can accommodate disabled students in an inclusion model more so than the less confident teacher because the confident teachers were usually the ones with the experience and “know how” needed to reach all students. These teachers were usually the ones who would inherit the unmotivated or “problem student” in their classrooms which in turn equipped them with the skills to handle such students. Teacher C mentioned that she could teach any student as long as she knew what was expected of them academically. This was the same response she had given concerning

inclusion as the best educational opportunity for all students. Teachers A and D who are both math teachers, felt that a competent teacher could teach disabled students more so than a teacher less confident, but this does not necessarily mean that they can teach all disabled students. Teacher A was adamant that he is very confident in his teaching ability. He concluded by stating that: “I have been teaching math for 15 years and I have confidence that I can reach all levels of students, but I know that there are some that I will never reach.” This statement was also similar to what Teachers C and D who have combined experience totaling 47 years of teaching experience between the two of them. They agreed that confident teachers have the efficacy and the self-assuredness that affords them the belief and confidence that they can reach disabled students.

Responses from Teachers E and F who have the least amount of teaching experience (3 and 10 years respectively), felt that their colleagues who exude confidence can teach the disabled students more effectively than the teachers who are not as confident. Teacher E stated that she is mentored with a veteran teacher to learn the “ropes” of becoming an excellent teacher. This was also mentioned by Teacher F who has 10 years of experience. He felt that in his opinion, a confident teacher can “teach” any student.

Pattern Variable 2: Modification of Teaching Style

Interview questions 2, 3, and 4 are commensurate with pattern variable 2 modification of teaching style (see figure 1), because these particular interview questions focused on making accommodations and changing teaching styles to accommodate disabled students in the regular classroom setting. During the interview sessions, questions 2, 3, and 4 generated the lengthiest conversation of all of the questions for 67%

of the respondents. The 67% represented the teachers with the most years of teaching experience.

Question 2 asked: How has the mainstreaming/inclusion construct impacted your teaching style? Prompt: What changes have you made to accommodate disabled students? Were these changes organizational or procedural?

Teacher A (math) responded by saying that inclusion had made him more aware of the needs of all students in his math classes. He stated that the inclusion students in his math classes worked slower and he has had to give extra time for assignments and tests. He noted that his teaching style had “definitely” changed and that some would say “for the better.” Teacher A also mentioned having to provide interim grades, and tutoring for students not doing well in his classes. The tutoring was a duty assignment shared with other math teachers as a means of employing intervention strategies for struggling disabled and non-disabled students. Teacher A saw some of the changes as both organizational and procedural.

Teacher B (English 12) gave a positive response to this question. She mentioned that she had changed her teaching procedures partially due to organizational changes and partially due to procedural necessity on her part. Teacher B spoke of teaming with her colleagues to come up with strategies that can be used to help disabled students. She noted that there have been changes in the way assignments are given and graded. Students are given rubrics with each assignment, therefore; putting more ownership on their grades. The rubrics detail what is needed to make a certain grade. Teacher B also found this to be highly effective for all of her students. Teacher B went on to detail how she has changed her lesson plan format to provide for more hands-on instruction in the

classroom and more group work. The group work helped the less inclined student to be peer tutored by fellow students in the classroom.

Teacher C (English 11) shared a similar experience, noting that over the last five years since her school became heavily immersed in the inclusion construct; she has had to take into account the needs of all students in the classroom. Some the changes in her teaching have been organizational due to inclusion and some procedural.

Teacher C shared that she has begun to revamp her lesson plans and to use pacing guides. The pacing guides have enabled her to pace the instruction in a manner that the most important concepts covered on the SOLs are taught. Teacher C candidly remarked that she has taken out the “frills” of social studies. She also mentioned that her grading has been modified, not to benefit only the disabled students, but all students. Instead of assigning numerous projects, she assigns two (2) major projects to be completed per semester. Two choices are given for each project. It is up to each student to select Project A or Project B for a grade. A rubric is given to help each student determine what is needed to make a certain grade for each project. All students are given nine weeks to complete the project.

Teacher D (math) responded to interview question 2 in a tone that was different from the tone used by the other respondents. Teacher D stated that he had not made any changes to accommodate students. When prompted to provide more information, he stated that: “With math, either a student knows the material or he does not. Changing the way I teach is not going to guarantee success in math for those students who do not have the aptitude.” Teacher D was adamant that it was up to the individual students to ask for help and that there were special education teachers to provide “extra” tutoring for

disabled students who could not make it in the regular classroom. Teacher D did not think his teaching methods needed changing because “after all, they had been effective for 22 years.”

In response to question 2, Teacher E (Business) stated that being she has taught for only three years that she really did not have to make many accommodations for disabled students in her Keyboarding classes because she assigned work according to the students’ skill level. Teacher E remarked that if the researcher were to ask this question five years from today that she would probably have a different answer. At present time, Teacher E felt very confident with the progress of her students.

Teacher F (English 9) mentioned that he had made accommodations to reach all students. Some of the change was procedural and some was organizational. Teacher E noted that he had begun to use the strategies his department had learned when they had training differentiated instruction. Working collaboratively with his colleagues, Teacher F agreed that the best practices being implemented were effective in reaching all students while taking into account the students’ varied learning styles.

Question 3 stated: What changes have you made in your teaching style, if any, how you teach disabled students in the inclusive classroom? Prompt: what methodological changes did you make? Did you make any curricular changes?

Being questions 2 and 3 were similar in nature, the respondents mentioned that their answers to question 3 were pretty much the same as for question 2. All of them mentioned that any accommodations made were reflective of changes in their teaching style.

Respondent A noted that he had begun to use some research-based strategies such as peer tutoring and differentiated instruction to help his math students achieve in the classroom. He noted that even though he still feels that inclusion is not for all students that he does have an obligation to teach them if they are in his classes. Curricular changes included making modifications in grading and assignments given.

Teacher's B response to question 3 mentioned that she had made some curricular changes in assignments given and in her grading policy. As an English teacher, Teacher B remarked that making methodological and curricular changes to accommodate disabled students was the 'right thing' to do for disabled students. The individualized instruction along with peer tutoring implemented in Teacher's B English classes have proven to be beneficial for disabled, as well as, non-disabled students.

Teacher C responded that methodological changes came by way of training on the teenage brain and how the brain functions in regards to learning. Teacher C stated that being aware of how teens learn has enabled her to plan lessons with different learning styles in mind. She is more cognizant of the learning difficulties faced by disabled students.

Teacher D responded to question 3 in the same manner as he did with question 2. He admits to not making any methodological or curricular changes per se. Teacher D felt that math is a subject where a student must put forth an effort in order to do well. He noted that by making changes in teaching style will not guarantee academic success.

Teachers E noted that she has been in the classroom for three years and she felt that her teaching style was in tune with meeting the need of her students. She mentioned

that she is being mentored by a veteran teacher as a means to learning the “ropes of teaching.”

Teacher F said that he had made methodological changes as had his colleagues in the English department. Changes in grading policies and teaching strategies have enabled Teacher F to see a difference in achievement of his disabled students. Employing the peer tutoring and peer editing practices also enabled students to work with one another in an effective manner. Teacher F noted that pairing students with one another was effective for disabled and non-disabled students.

Question 4 stated: Have these changes in teaching style been successful for disabled, as well as, for non-disabled students? Prompt: If yes, how so?

The responses from the teachers who had made changes to their teaching style all agreed that the changes had benefited all students. Teacher D was the only teacher who emphatically remarked that he had not make changes in his teaching routine because the changes did not necessarily mean academic improvement. His responses centered on the ideology that either students know math or they don't.

Teachers A, B, C, E, and F acknowledged that using strategies such as peer tutoring, differentiated instruction techniques, rubrics, and individualized instruction have enabled them to reach all students by teaching to the varied learning styles in the regular classroom. Teacher F was pleased with having students to do peer editing on papers because it was a good way to have students work with one another and to practice the rules of using correct grammar and mechanics in their writing.

Teachers B and C both talked about the differentiated instruction strategies and how beneficial they had been in helping to change their teaching style. The training

experiences dealing with teaching methodologies and the workings of the teenage brain helped them to become more cognizant of their teaching styles. Both teachers recognized that making accommodation in their grading policies and work assignments benefited all students and not just one segment of the class population.

Survey Experience

Information concerning the respondents and their experience with surveys, whether on-line, paper/pencil, or telephone is discussed as it relates to questions 6, 7, 8, and 9. Question 6 asked: Were you able to participate in the online survey? Prompt: if so, why did you choose not to participate? If no, do you think you would have participated?

Teachers A, B, C, D, E, and F all responded that they had the opportunity to participate in the online survey. Teachers A and D thought that it was just another survey even though they had been apprised of the purpose for the survey. Teacher D stated that he just kept putting it off. Teacher A noted that he gets five to six requests a year for information and there are times when he does the survey and then he just forgets about them.

Teachers B, C, E, and F remarked that they had intended to do the survey, but they let time get away from them. Teacher E noted that being she is around computers all day that she could have done the survey in no time. She mentioned that she really did not have an excuse.

Question 7 asked: Have you participated in an online survey before? Teachers A, B, D, E, and F all stated that they had participated in online surveys in the past. Teacher C was the only teacher to say that she had not participated in an online

survey. When questioned why, she stated that she does not do too well with the computer and that she was from the “old way of doing things,” meaning that her computer skills and knowledge are not the same as the younger generation of teachers.

Question 8 asked: Was it a good experience?

Teachers A, B, D, E, and F all stated that their online survey experiences were good. Teacher B said that she had never had a bad online survey experience because she chose which surveys to submit; therefore having more control. Teacher A noted that he never had any problems with online surveys because he had the freedom to participate if the content interested him.

Question 9 asked: Are you more comfortable with paper/pencil surveys? Telephone surveys? Why?

Teachers A, C and D all stated that they felt more comfortable with the paper/pencil surveys. All three agreed that with the paper/pencil surveys that they had the opportunity to read over the material and to think about it before answering. With the online surveys, A, C, and D felt that if they left the website that they would not return. These same three respondents also noted that the telephone survey was alright as long as it did not require too much of their evening time. Teacher D also stated that the telephone survey is fine because he could hang up if he got tired of answering questions.

Teachers B, E, and F responded that they felt more comfortable with the online surveys. Teacher B noted that this seemed like a contradiction because she had failed to complete the initial online survey. Both teachers E and F agreed that the online way of submitting a survey was much easier and less time consuming than reading through a

paper/pencil version. Teachers E and F stated that talking on the telephone was the second choice of survey.

Summary

Chapter 4 contained the study results exploring the relationship between secondary teacher's self-efficacy and attitudes as they relate to teaching disabled students in the inclusive setting. The study consisted of 261 secondary teachers currently teaching disabled students in the regular classroom. The independent variables were geographic location, grade taught, gender, and years of experience. Dependent variables consisted opinions/attitudes, adaptations, training domains under the STATIC survey instrument. Domains under efficacy included student engagement, instructional strategies, and classroom management. These domains were associated with the Teacher Efficacy Scale (Short Form). Descriptive and inferential statistics were analyzed using SPSS. The data determined whether or not there were statistically significant differences in the mean score of the survey items.

Findings as they relate to the research questions can be summarized by stating that all of the demographic variables used in this study were found to be statistically significant at the .05 probability level for at least one of the various survey items used to answer the research questions. The statistically significant findings for each item of the survey as well as how these findings compare to the findings of other research are detailed in Chapter 5.

The qualitative data analysis of the telephone interviews found two pattern variables through analysis of the data. The pattern variables of beliefs/opinions and

modification of teaching style were taken from the analysis of initial coding of the teacher responses to the interview questions. The data are summarized in Chapter 5.

CHAPTER V

Discussion

This study was done to find out if there existed a relationship between teacher self-efficacy and teacher attitudes as they relate to teaching disabled students in the inclusive classroom. The Scale of Teachers' Attitudes Toward Inclusion (STATIC) was used along with the shortened version of the Teacher Efficacy Scale (TES) to obtain the data. The STATIC and TES had items broken down into domains which contained survey items that served as dependent variables paired with the independent variables of geographic location, grade taught, gender, and years of experience. The items per domain ranged from 12 statements down to three to four statements as found in the efficacy domains.

The STATIC consisted of 28 items on a five point Likert type scale. The scale included: 1=strongly agree; 2=agree; 3= undecided; 4=disagree; and 5= strongly disagree. The scale for the TES consisted of a six-point Likert type rating. It included: 1=strongly agree; 2=moderately agree; 3=agree slightly more than disagree; 4=disagree slightly more than agree; 5=moderately disagree; and 6=strongly disagree. Both scales had a reliability rating of .85 Cronbach alpha.

Opinions About Mainstreaming/Inclusion

Survey items regarding academic and social needs of LD students in the regular classroom show a difference in responses. Urban/suburban teachers had a higher mean for item 5 (3.49) in comparison to the rural teachers for the same item. The mean score of 3.49 implied that urban/suburban teachers were undecided as to whether or not the academic needs of LD students can best be served through special, separate classes.

Along that same line, rural teachers had a higher mean than the urban/suburban teachers when it came to the social aspect of separate classes for LD students. A large number of rural teachers felt it best that LD students be served in separate classes to improve upon their social skills. Items seven and eight show both the rural and urban/suburban teachers with similar means. A *t*-test revealed a statistical significance for item seven which dealt with the benefits of having LD students in the regular classroom part time.

The years of experience variable tended to produce similar results in mean scores for all groups. The 0-5 and 6-10 groups had similar mean scores for the 8 items listed as well as the 11-15 and 16+ groups. The 11-15 and 16+ groups had very close mean scores for items 1 and 2 which dealt with mainstreaming/inclusion not meaning extra work for the teacher. Overall, both the 11-15 and 16+ teacher groups agree that LD students will benefit academically by being in a regular classroom full time.

A *t*-test revealed a statistical significance in item 11 which stated that LD students mainstreamed part time adjust better in society after school.

Adaptations

As for the teachers willing to make adaptations and/or modifying teaching style, item 15 proved to be statistically significant among all 8 items presented on adaptations. Item 15, under the variable of gender, showed that male (2.14) and female (1.93) means scores indicated that they agree that they are willing to modify teaching styles for LD students.

Mean scores for the various groups remained consistent for the 8 items concerning adaptations. Urban/suburban teachers had more discrepancy in their mean scores for item 17 (4.01) to a low of 1.91 as compared to their rural counterparts. In

comparing the data for rural and urban/suburban teachers for items 13-20, there was a statistical significant difference in item 17 which dealt with how willing teachers are or are not willing to adapt curriculum for part time LD students. A *t*-test revealed a statistical significance in item 17 for both variables of geographic location and years of experience. Item 17 dealt with the idea of teachers not willing to adapt curriculum for part time LD students. With the mean scores evidenced, it is apparent that teachers disagreed with this statement.

Training

In looking at the data concerning training and gender, females had higher mean scores for item 24 (4.01) regarding inadequate training but willing to receive more training to teach LD students than their male counterparts (3.52). Females also had higher mean scores than males for items 25, 26, and 28 concerning teacher confidence in teaching LD students (items 25 and 26) and the notion that all teachers teaching LD students full time needing training. A *t*-test revealed a statistical significance for items 22 and 24 under the gender variable. Item 22 dealt with teachers having insufficient training to teach LD students full time, but willing to receive training. Item 24 was similar in that it dealt with teachers having inadequate training but willing to receive more training to be able to teach LD students full time.

The data for training and years of experience, yielded the fact that the 6-10 group of teachers had higher means for item 23 (3.46) and 24 (3.75) in comparison with the 0-5 group for the same item. Items 23 and 24 dealt with inadequate training and the teacher willing to receive extra training in order to teach LD students either part time or full time in the inclusive classroom.

A statistical significance was found in item 27 under the variable of years of experience. Item 27 dealt with the idea that all teachers teaching LD students part time should have training in teaching LD students.

A statistical significance was found in the mean score for item 28 for the 0-5 and 6-10 groups under the variable of years of experience. Item 28 dealt with the idea that all teachers teaching LD students need training in teaching LD students.

Efficacy and Instruction

Data gathered from the three items concerning teacher efficacy and instruction in relation to the variables of geographic location, grade taught, gender, and years of experience revealed no statistical significance among the three items presented.

Efficacy and Student Engagement

Data gathered from the domain items dealing with efficacy and student engagement in regard to the variable of geographic location, grade taught and years of experience revealed no statistical significance among mean scores for the three items presented. A *t*-test revealed a statistical significance for item 3 under the variable of gender. Item 3 dealt with the teacher's confidence of being able to motivate students who

Efficacy and Classroom Management

Data generated from the domain of efficacy and classroom management as it relates to geographic location and gender show no statistical significance between means of the 4 item listed. A *t*-test revealed a statistical significance for item 1 under the variable of grade taught for 9th and 10th grade teachers. Item 1 dealt with the idea that the amount a student can learn is related to family background.

As for years of experience, the data shows that the 6-10 teachers had mean scores that suggest that they strongly agreed with items 1 (1.45), 7 (1.95) and 8 (1.98) whereas the 0-5 teachers moderately agreed with items 6 (2.70), 7 (2.11), and 8 (2.21). The 0-5 teachers tended to agree slightly more than disagree with item 1 (3.92) in comparison with the 6-10 teachers (1.45) who strongly agreed that the amount a student can learn is related to family background.

The 11-15 and 16+ grade teachers shared similar mean scores for items 7 and 8. The mean scores of 1.77 (11-15 group) and 1.87 (16+ group) suggest that both groups of teachers strongly agree with the statements that they can handle disruptive students (item 7) and access the level of difficulty of student assignments (item 8).

A difference of opinion for the 11-15 and 16+ teachers for items 1 is evidenced by the means scores for both groups. The 11-15 group (4.03) tended to disagree slightly more than agree with the premise that the amount a student can learn is related to family background whereas the 16+ group agreed slightly more than disagree with the statement concerning family background and student learning.

A *t*-test revealed a statistical significance for items 6 and 8 under the variable of years of experience. Item 6 dealt with the teacher knowing how to improve student retention and item 8 dealt with knowing how to access the difficult of a given assignment.

Qualitative Data Analysis

A telephone interview was conducted with six secondary teachers representing the geographic locations of rural, urban, and suburban school systems. There were three male and three female teachers participating in the interviews. The participants have an

average of 14.5 years of teaching experience between them. Teaching experience ranged from 3 years to 25 years in the classroom.

After the data had been coded and analyzed, two pattern variables surfaced. These variables included: beliefs/opinions, modifications of teaching style, and survey experience. Responses to the interview questions were analyzed and discussed in relation to the appropriate pattern variable presented.

Pattern Variable 1: Beliefs/Opinions

This pattern variable dealt with interview questions 1 and 5. These questions asked teachers about their thoughts on inclusion and whether or not inclusion was the best educational opportunity for all students. Overwhelmingly, 5 out of 6 of the teachers had positive attitudes toward inclusion. They cited that there are academic, as well as, social benefits of inclusion for all students. Only 1 out of 6 of the respondents had a negative view of inclusion. One respondent made a negative statement that inclusion is the same as trying to fit too many square pegs into round holes.

Interview question 5 received a positive response from all six participants. It centered on whether a teacher with a high level of confidence can accommodate disabled students to a greater degree than a teacher who is not so confident. All six teachers replied that a confident teacher is able to reach any child more so than the teacher with little or no confidence. The teachers with the most experience felt that confidence came with the experience of being in the classroom for many years.

Pattern Variable 2: Modification of Teaching Style

Under pattern variable, the data from questions 2, 3, and 4 were discussed in detail. Questions 2, 3, and 4 all dealt with tacking styles and making accommodations for

disabled students. The responses for the most part (5 out of 6) were positive when it came to teachers making changes in their teaching styles. The majority of the teachers stated that they had made organizational and procedural changes in the way they teach in the inclusive setting. When asked if these changes had been beneficial for all students, the teachers (5 out of 6) stated that everyone in their classroom had benefited from the changes.

There was only one math teacher who stated that he had not made any changes in his teaching style per say. He noted that math is a subject where the students know the material or not. This particular math teacher also stated that making changes in teaching style or making accommodations do not guarantee academic success for all students, especially the ones who need extra help with the content.

Question 3 was similar to question 2 in that it asked what changes had teachers made in their teaching style. Again, 5 out of 6 teachers responded positively to the question. These teachers mentioned that they had taken a closer look at their teaching methods and strategies used in the classroom. The majority of the teachers (5 out of 6) mentioned that making changes in grading policies and classroom assignment benefited all students.

Only one math teacher responded in a negative fashion to the question 3. This math teacher reiterated that changes had not been made in his teaching style because he had been teaching effectively for years with much success. He did not see a need to change his teaching practices just because there were some students who needed extra help with math.

Survey Experience

Responses to questions 6, 7, 8, and 9 as they pertained to survey experience were analyzed and discussed. All six of the respondents said that they had survey experience whether via paper/pencil, telephone, or online. Only one teacher stated that she had never done an online survey but had done paper/pencil or telephone versions.

When analyzing survey preferences, it was found that 3 out of 6 teachers preferred to do paper/pencil surveys. They noted that the paper/pencil version survey allowed them the opportunity to read over the questions and ponder their responses before answering. These teachers also noted that if they had to use an online version that they would log for one reason or another and then not return.

As for the online survey, three of the respondents said that they preferred to use the computer to answer survey questions. These teachers noted that the online version allowed them the opportunity to submit the survey in an easier fashion and they did not have to worry with returning the paper/person versions. It should be noted the younger teachers preferred the online version.

When the respondents were asked if they had the opportunity to do the initial online survey, all 6 replied with a positive remark of yes. The reasons for not participating included the time factor and forgetfulness. None of the teachers said that they had a good reason for not participating.

Conclusion

The research question and sub questions examined in the study generated data from the STATIC and TES survey instruments which were designed to measure teacher attitudes and teacher efficacy. The research question explored the question: (1) Is there a

relationship between teacher self-efficacy and teacher attitudes towards inclusion. The sub questions included: (1) Is this relationship influenced by factors such as geographic location, grade taught, gender, and years of experience? (2) How do the attitudes of secondary teachers compare with attitudes of elementary teachers as reported in the research?

Empirical studies on teacher efficacy and teacher attitudes as they relate to teaching disabled students in the regular classroom setting show that the majority of teachers, both secondary and elementary, agree that students with disabilities can benefit from being in the regular classroom settings (Hamill and Dever, 1998; Jordan and Stanovich, 2001). The results from this study found that secondary teachers agree that disabled students can benefit from being in the regular classroom setting because of academic benefits as well as the social benefits.

As for efficacy and confidence levels, the study found that secondary teachers tended to agree that they have the ability to reach disabled students in the inclusive setting. Findings in the study indicated that in general, secondary teachers were willing to make adaptations in grading and curriculum policies. The results from the study also suggested that secondary teachers were undecided as to whether or not they would make adaptations. The study found that teachers who felt they had sufficient training tended to have a more positive outlook on teaching disabled students in the regular classroom. Teachers with insufficient training tended to be undecided in their responses and did not feel as if inclusion/mainstreaming could benefit disabled students.

Conflicting findings such as this can be seen in other empirical studies, such as the Jordan and Stanovich (2001) and the Van Reusen, Shoho and Barker (2000) empirical

studies which found that teachers who had high classroom management skills tended to have high confidence levels and a higher sense of efficacy. The lower the teacher's confidence level, the less likely the teacher felt the ability to teach disabled students in the inclusive classroom. As with this study, it became evident that attitude and efficacy does share a relationship with the secondary teachers' ability to teach in the inclusive classroom setting.

When looking at the individual domains of this study, it was found that the various groups surveyed tended to share mean scores similar in nature. There was some statistical significance within the mean scores for certain statements within each domain. The variables of geographic location, grade taught, gender and years of experience suggested that each group had uniqueness in its responses. This study supports the premise that attitudes and efficacy share a relationship with the variables of geographic location, grade taught, gender, and years of experience. Differences in mean scores were evident when it came to opinions concerning mainstreaming and inclusion making adaptations and training. The efficacy domains of instruction, student engagement, and classroom management suggested that responses of the various groups surveyed were congruent with finding found in the empirical research conducted by Brownell and Pajares, 1999; Mastropieri and Scruggs, 1997; and Van Reusen et al (2000).

The study showed rural and urban/suburban teachers had differing views as did males and females. Teachers who taught different grades tended to have opposing views as did teachers who had different levels of experience in the classroom. It should be noted that throughout the survey males, rural teachers and upper level teachers with 16+ or experience tended to have higher mean scores in the different domains. This may be in

relation to the fact that these teachers may have been better prepared to reach disabled students; therefore, they had a higher sense of efficacy when it came to teaching disabled students in the regular classroom setting.

To answer sub question 2 concerning the research from this study and that of elementary teachers, the findings indicated that secondary teachers were in favor of certain aspects of inclusion such as making curricular changes or modifying teaching styles. The empirical research done on the elementary level (Scruggs and Mastropieri, 1996) suggested that elementary teachers are more accepting of having disabled students in the regular classroom. The elementary teachers believed that they had sufficient classroom time for inclusion and the support of paraprofessionals, all of which is not as available on the secondary level. Even though the data suggest that there are differences in the two elementary and secondary teacher groups, it did confirm that both groups under different circumstances welcomed inclusion as a positive thing.

The qualitative data gathered from the telephone interviews of six secondary teachers teaching in inclusive classroom confirmed the findings from empirical research on inclusion (Scruggs and Mastropieri, 2001) that notes teachers are in favor of the inclusion construct. Secondary teachers agree that inclusion is great for some students and not the best educational practice for others. The data from the telephone interviews also concluded that teachers with confidence and high efficacy are able to teach in the inclusive setting with assuredness of academic success for disabled and non-disabled students.

In conclusion, this study found that there is a relationship between secondary teachers' self-efficacy and attitudes as they relate to teaching learning disabled students

in the inclusive setting. This relationship can be influenced by factors such as geographic location, grade taught, gender, and years of teaching experience.

Study Limitations

The number of respondents choosing to participate in this study was small, therefore; making it harder to represent a majority of the secondary teachers who teach in inclusive classrooms in Virginia's secondary high schools. It should also be noted that the participants were self-volunteers which may contribute to bias. Caution should be taken when interpreting the results of this study.

The surveys used in this study pertained to the learning disabled population. Results may be biased due to the fact that secondary teachers may feel more receptive to having learning disabled students in their regular classrooms. The generalizations from this particular population sample may not be replicated through research for other more diverse populations. In order to improve on the generalizability of this study, an increase will have to be made with the number of participants and to make it a nationwide study. By doing this, the study will be replicable.

Recommendations for Further Research

The empirical research on inclusion at the secondary level is limited; whereas most of the studies have been conducted at the elementary level. According to Mastropieri and Scruggs (2001), inclusion at the secondary level represents a significant challenge to educators. Issues such as academic complexity, pace of instruction, teacher attitudes, and high states academic testing pose specific concerns that must be taken into consideration when implementing the inclusion construct.

Based on the review of literature and information taken from this study, it should be noted that schools will have to look at how inclusion is implemented and the degree to which it is implemented. Schools will have to address the benefits of inclusion and which students may benefit from being in the regular classroom setting. The academic and social aspects, as well as, how receptive regular teachers are to it will determine how successful inclusion becomes for any school.

It should be noted that the attitudes and efficacy of teachers teaching in the inclusive setting are two of the most important aspects of how well an inclusion program works at any level. The research shows that teachers will have to have a healthy attitude and a high degree of confidence in order to teach in an inclusive setting. This is especially true for secondary teachers who must deal with other constructs that are affiliated with the secondary level.

This study found that teachers who have sufficient training tend to have a better acceptance of teaching disabled students in the inclusive classroom. The amount of training and the confidence levels have to be addressed for any teacher teaching disabled students. In-service programs, coursework, and specialized staff developments can be instituted to help all teachers who teach in the inclusive setting.

Future research on teacher attitudes and efficacy as it relates to inclusion should look at whether or not the type of disability makes a difference in how teachers feel about the construct. Focus should be on the factors that affect how teachers feel about inclusion and whether or not there are academic and social benefits that are worthy of implementing the construct for all disabled students. Future researchers may also look at the type of instruments used to measure teacher attitudes toward the inclusion construct.

The idea that inclusion at the secondary level is more complicated warrants an extra look and how it differs so greatly from the way elementary teachers deal with the construct. What are the academic and social outcomes of inclusion? More studies are needed in order to answer these questions.

In order to answer other questions of concern, a nationwide longitudinal study could be done to track students enrolled in the inclusion construct from the elementary level throughout high school. This study could also track the opinions and attitudes of teachers as they progress over the years from having taught in the inclusive classroom. Interviews of students who are served in the inclusive setting could also render some vital information as to the benefits and drawbacks of the inclusion construct.

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APPENDICES

Appendix A

Secondary General Educators Teacher Attitudes Survey

For the purpose of this survey, the term “learning disabled” refers to students who have been found to have a disorder in one or more of the basic psychological processes involved in understanding or using language. This may be in the areas of written or spoken language in which the child has problems in the ability to listen, speak, read, write spell or perform mathematical calculations.

Instructions: Please check one response that best describes your reaction to the following items. There are no correct answers, the best answers are those that honestly describe your feeling. *(scale located under each question for the on-line version).

Key: SA= Strongly Agree A= Agree U= Undecided

D= Disagree SD= Strongly Disagree
NA= (not applicable) Questions 23-26

A. Opinions About Mainstreaming and Inclusion

1. Mainstreaming does not mean extra work for the teacher.
2. Inclusion does not mean extra work for the teacher.
3. I am in favor of mainstreaming students with LD in regular classrooms.
4. I am in favor of including students with LD in regular classrooms full time.
5. The academic needs of students with LD can best be served through special, separate classes.
6. The social needs of students with LD can best be served through special, separate classes.
7. Students with LD will benefit academically by being in regular classrooms part time.
8. Students with LD will benefit academically by being in regular classrooms full time.
9. Students with LD will show improved social skills if mainstreamed (part time).
10. Students with LD will show improved social skills with inclusion (full time).

11. Students with LD will be able to adjust better in society after leaving school if they had the opportunity to mix without disabilities part time.
12. Students with LD will be able to adjust better in society after leaving school if they have had the opportunity to mix with students without disabilities full time.

B. Adaptations.

13. I am willing to make the changes required in the classroom setting to help integrate students with LD part time.
14. I am willing to make the changes required in the classroom setting to help integrate students with LD full time.
15. I am willing to modify my teaching styles to meet the needs of students with LD enrolled part time in regular classrooms.
16. I am willing to modify my teaching styles to meet the needs of students with LD enrolled full time in regular classrooms
17. I am not willing to adapt the curriculum for students with LD enrolled part time in regular classrooms.
18. I am not willing to adapt the curriculum for students with LD enrolled full time in regular classrooms.
19. I am not willing to adapt existing grading policies for students with LD enrolled part time in regular classrooms.
20. I am not willing to adapt existing grading policies for students with LD enrolled full time in regular classrooms.

C. Training

21. I have sufficient training to help integrate students with LD into regular class part time.
22. I have sufficient training to help integrate students with LD into regular class full time.
23. Currently I have inadequate training to meet the needs of students with LD, but with adequate training, I would be willing to teach students with LD in regular classrooms.

24. Currently, I have inadequate training to meet the needs of students with LD for inclusion, but with adequate training, I would be willing to teach students with LD full time in regular classrooms.
25. If I had taken courses in the education of students with LD as an undergraduate, I would have more confidence in teaching students with LD part time in regular classrooms.
26. If I had taken courses in the education of students with LD as undergraduate, I would have more confidence in teaching students with LD full time in the regular classrooms.
27. To be able to help students with LD enrolled part time in the regular education setting, all teachers should have some training in the education of students with LD.
28. To be able to help students with LD enrolled full time in the regular education setting, all teachers should have some training in the education of students with LD.

Please continue on to the next survey.

Appendix B

Secondary General Educators Teacher Efficacy Survey

For the purpose of this survey, the term “student with disabilities” refers to students who have been found eligible for special education services. These students may have cognitive and/or physical disabilities (i.e. Speech, learning disabled, mentally handicapped, visually impaired, attention deficit, etc.)

Instructions: Please indicate your personal opinion about each statement by checking the appropriate response below each statement (**key located under each question for the on-line version**).

**Key: 1= Strongly Agree 2= Moderately Agree 3= Agree slightly more than disagree
4= Disagree slightly more than agree 5= Moderately Disagree
6= Strongly Disagree**

1. The amount a student can learn is primarily related to family background.
2. If students aren't disciplined at home, they aren't likely to accept any discipline.
3. When I really try, I can get through to most difficult students.
4. A teacher is limited in what he/she can achieve because a student's home environment is a large influence on his/her achievement.
5. If parents would do more for their children, I could do more.
6. If a student did not remember information I gave in a previous lesson, I would know how to increase his/her retention in the next lesson.
7. If a student in my class becomes disruptive and noisy, I feel assured that I know some techniques to redirect him/her quickly.
8. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment was at the correct level of difficulty.
9. If I really try hard, I can get through to even the most difficult or unmotivated students.
10. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his/her home environment.

DEMOGRAPHICS:

29. The school I currently teach in is considered:

1. Rural 2. Urban/suburban

30. My gender is:

1. Male 2. Female

31. My total years of teaching experience are: _____.

32. The name of my school district is _____.

ACKNOWLEDGMENT AND APPRECIATION:

THANK YOU FOR TAKING THE TIME TO COMPLETE THESE SURVEYS. YOUR RESPONSES ARE GREATLY APPRECIATED.

Margaret J. Barco
Ph.D Candidate, VA Tech

Appendix C

INFORMATION SHEET FOR SECONDARY GENERAL EDUCATORS

Dear Secondary General Educator:

For many schools, the regular classroom setting is an integral part of the inclusion construct. For the last 20 years or more inclusion has become a major part of education reform.

As part of my research study at Virginia Tech, I am interested in studying whether or not a relationship exists between teacher self-efficacy and teacher attitudes as it relates to teaching disabled students in the inclusive classroom setting. My research question is: (1) is there a relationship between teacher self-efficacy and teacher attitudes toward inclusion. Sub questions that will be examined are: (1) Is this relationship influenced by factors such as professional training, years of teaching experience, and gender; and (2) How do the attitudes of secondary general educators compare with the attitudes of elementary school teachers as reported in empirical research?

There are two on-line surveys (teacher efficacy and teacher attitudes) that are a part of this research project. These surveys are completely confidential and your personal information will not be identified in the study. Your participation is voluntary and consent will be given by your participation. There will be no compensation for your participation in this study.

To access the surveys please go to the following web-site.

<http://www.surveymonkey.com/s.asp?u=94402375942> attitude survey and efficacy survey

If you experience any difficulties in accessing the surveys, feel free to e-mail me at mjbarco@vt.edu. My telephone number is 540-463-4230. I will be available to provide any needed assistance because this study is important and I want it to be a success. Once the data has been collected and analyzed, I want to share the information with school divisions across the state of Virginia.

I wish to take this time to thank you for participating in my study on teacher efficacy and teacher attitudes toward inclusion. Your responses are invaluable to the success of this research project. Thank you.

Margaret J. Barco
Doctoral Candidate
Educational Leadership and Policy Studies
Virginia Polytechnic Institute and State University

Appendix D

Dear Division Superintendent:
Dear Building Principal

For many schools, the regular classroom setting is an integral part of the inclusion construct. For the last 20 years or more inclusion has become a major part of education reform.

As part of my dissertation research at Virginia Tech, I am interested in studying whether or not a relationship exists between teacher self-efficacy and teacher attitudes as it relates to teaching disabled students in the secondary inclusive classroom setting. My research question is: (1) is there a relationship between teacher self-efficacy and teacher attitudes toward inclusion. Sub questions that will be examined are: (1) Is this relationship influenced by factors such as professional training, years of teaching experience, and gender; and (2) How do the attitudes of secondary general educators compare with the attitudes of elementary school teachers as reported in empirical research?

There are two on-line surveys (teacher efficacy and teacher attitudes) that are a part of this research project. These surveys are completely confidential and the teachers' personal information will not be identified in the study. The teachers' participation is voluntary and consent will be given by their participation. There will be no compensation for the teachers participating in this study.

To access the surveys please go to the following web-site.

<http://www.surveymonkey.com/s.asp?u=94402375942> attitude survey and efficacy survey

In order to complete this project, I need your permission to survey your secondary general education teachers who teach disabled students in the inclusive classroom setting. You can e-mail me at mjbarco@vt.edu granting permission or return the permission slip enclosed in this packet. I can also be contacted at 540-463-4230 if you wish to leave a voice message.

I want to take this time to thank you in advance for participating in my study on teacher efficacy and teacher attitudes toward inclusion. The participation of your secondary general education teachers is invaluable to the success of this research project. Thank you.

Margaret J. Barco
Doctoral Candidate
Educational Leadership and Policy Studies
Virginia Polytechnic Institute and State University

Ph. 540-463-4230

Appendix E

Telephone Interview

Survey: Teacher Efficacy and Attitudes as They Relate to Teaching Learning Disabled Students in the Inclusive Setting

Good Evening_____. First of all, I wish to thank you for agreeing to participate in my study on teacher efficacy and attitudes as they relate to teaching disabled students in the inclusive classroom. As previously mentioned, the data gathered from this survey will remain confidential and will be destroyed at the end of this project. By agreeing to participate, you are giving your consent.

The survey will take no more than one hour and at the end of the interview, you will be given an opportunity to respond to four open ended questions concerning mainstreaming/inclusion. I will record your comments as they are given. From that point on, the information will be analyzed and written up as part of my research.

If you do not have any questions, then we will begin the interview. First I will ask you to respond to a general question concerning mainstreaming/inclusion and then I will have you to respond to some questions on teacher efficacy. Following your responses to the first two set of questions, I will ask you four open-ended questions about the on-line survey. You may respond as you wish. All responses will be recorded as given. All responses will be reported in group form and you personal responses will not be able to be identified. After the study all data will be destroyed.

Let's begin!

1. Overall, how do you feel about mainstreaming/inclusion?
 Prompt: Have you had experience with inclusion?
 Do you think inclusion provides the best educational opportunity for all students? Why or why not?
2. How has the mainstreaming/inclusion construct impacted your teaching style?
 Prompt: What changes have you made to accommodate disabled students?
 Were these changes organizational or procedural?
3. What changes have you made in your teaching style, if any, in how you teach disabled students in the inclusive classroom?
 Prompt: What methodological changes did you make?
 Did you make any curricular changes?
4. Have these changes in teaching style been successful for disabled, as well as, for non-disabled students.
 Prompt: If yes, how so?

5. Do you think a teacher who has a great deal of confidence in his/her teaching can accommodate disabled students in an inclusion model to a greater degree than one who is not so confident?
Prompt: Would you explain why?
6. Were you able to participate in the online survey?
Prompt: If so, why did you chose not to participate
If no, do you think you would have participated?
7. Have you participated in online surveys before?
Prompt:
8. Was it a good experience?
9. Are you more comfortable with paper/pencil surveys? Telephone surveys?
Why?

Would you please provide me with some demographic data about you and your school?

Grade taught:

Gender:

Geographic Location:

Years of Experience:

**THANK YOU FOR AGREEING TO PARTICIPATE IN MY STUDY ON
TEACHER EFFICACY AND TEACHER ATTITUDES AS THEY RELATE TO
TEACHING DISABLED STUDENTS IN THE INCLUSIVE CLASSROOM.**

HAVE A WONDERFUL EVENING!

INFORMATION SHEET FOR TEACHERS

Dear Teacher:

We would like to know how you feel about the inclusion of students in regular education classrooms. We are interested in this because we would like to know if how you feel about your efficacy as a teacher influences your attitude toward the inclusion of special education students in regular classrooms. We are asking you to complete a telephone survey that is composed of questions concerning how you feel about inclusion and how it might influence your teaching. The interview will consist of asking you questions that require a response from strongly agree to strongly disagree. In addition we have six open-ended questions that we would like to ask you that deal with your response to a survey. The survey should take no more than an hour and would be conducted on the week-end at a time that is convenient to you. I will contact you by telephone to ascertain the right time for you to participate.

Participation in this survey is voluntary and by participating you give your consent to gathering data. In addition there is no compensation for participation, except for the fact that you will be doing some good to help educators understand the dynamics of inclusion. Data from this study will be reported only in group form and no individual response will be able to be identified. In addition the personal demographic data will be used only for analysis and no individual will be able to be identified. Finally, after the study is completed, all data will be destroyed.

Participation in the study will be very simple and direct. I will telephone you and ask you a series of questions and will mark your responses on the survey. We will give you an opportunity to see the data we collect on the open-ended questions before these data are used in the study. Only group data will be reported in this study.

Again we want to thank you for participating in the study. We think this research is very important because it can give teachers a voice in describing how inclusion can work in the classrooms. Thank you.

Glen I. Earthman
Educational Leadership & Policy Studies
Virginia Tech

Margaret Barco
Rockbridge County Public Schools

Appendix G

IRB Letter



Office of Research Compliance
1880 Pratt Drive (0497)
Blacksburg, Virginia 24061
540/231-4358 Fax: 540/231-0959
E-mail: ctgreen@vt.edu
www.irb.vt.edu

FWA00000572(expires 7/20/07)
IRB # is IRB00000867.

DATE: September 29, 2006

MEMORANDUM

TO: Glen Earthman
Margaret Barco

FROM: Carmen Green 

SUBJECT: **IRB Exempt Approval:** "The Relationship Between Secondary General Education Teacher Self-Efficacy and Attitudes as they Relate to Teaching Disabled Students in the Inclusive Setting", IRB # 06-503

I have reviewed your request to the IRB for exemption for the above referenced project. I concur that the research falls within the exempt status. Approval is granted effective as of September 29, 2006.

As an investigator of human subjects, your responsibilities include the following:

1. Report promptly proposed changes in previously approved human subject research activities to the IRB, including changes to your study forms, procedures and investigators, regardless of how minor. The proposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.
2. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

cc: File

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An equal opportunity, affirmative action institution

DATE: February 13, 2007

FWA00000572(expires 7/20/07)
IRB # is IRB00000567.

MEMORANDUM

TO: Glen Earthman
Margaret Barco

FROM: Carmen Green 

SUBJECT: **IRB Amendment 1 Approval:** "The Relationship Between Secondary General Education Teacher Self-Efficacy and Attitudes as they Relate to Teaching Disabled Students in the Inclusive Setting", IRB # 06-503

This memo is regarding the above referenced protocol which was previously granted approval by the IRB on September 29, 2006. You subsequently requested permission to amend your IRB application. Approval has been granted for requested protocol amendment, effective as of February 12, 2007.

As an investigator of human subjects, your responsibilities include the following:

1. Report promptly proposed changes in previously approved human subject research activities to the IRB, including changes to your study forms, procedures and investigators, regardless of how minor. The proposed changes must not be initiated without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the subjects.
2. Report promptly to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

cc: File

Invent the Future

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An equal opportunity, affirmative action institution

Margaret Jackson Barco
650 N. Lee Highway
Lexington, VA 24450
Telephone: 1-540-463-4230
E-mail: mjbarco@vt.edu

CURRICULUM VITAE

SUMMARY STATEMENT

I have over 25 years of teaching and administrative experience in public education. These experiences have afforded me the opportunity to gain extensive knowledge about the teaching and learning process and how it affects educational outcomes.

EDUCATION

Virginia Polytechnic Institute and State University, Blacksburg, VA
Ph.D. Candidate in Educational Leadership and Policy Studies (Graduation date: May 2007)

Dissertation: The Relationship Between Secondary General Education Teachers Self-Efficacy and Attitudes as They Relate to Teaching Learning Disabled Students in the Inclusive Setting

Advisor: Dr. Glen I. Earthman

James Madison University, Harrisonburg, VA
M.Ed. in School Administration (1995)
Secondary School Administration
Middle School Administration

James Madison University, Harrisonburg, VA
M.Ed. in Specific Learning Disabilities K-12 (1988)

Norfolk State University, Norfolk, VA
B.S. in Mental Retardation K-12 (1981)

EMPLOYMENT HISTORY

Rockbridge County Public Schools, Lexington, Virginia
Grants Administrator and Student Services (2005-date)
Grant Proposal Writing
Grant Writing
Coordination of Federal Grants for RCPS
Grant Expenditures
Project Director Overseeing Emergency Response Crisis Management Grant

Chairperson for Emergency Management Steering Committee for RCPS
Student Services (2005-date)
Oversee Student Disciplinary Matters at School Board Level
Parent Liaison Between Schools Involving School Board Discipline Committee Meetings
Community Services Board Task Force Representing RCPS
Court Services

Rockbridge County Public Schools, Lexington, VA
SOL Test Coordinator (2005-2006)
ESL Coordinator
Coordination of SOL Testing Procedures for RCPS
Coordination of SELP/VGLA/VAAP Testing Procedures for RCPS

Rockbridge County Public Schools, Lexington, VA
Principal at Maury Middle School (2000-2005)
Financial and Budgetary Matters
Curriculum Development/Curriculum Implementation
School Improvement
School Restructuring
Teacher Recruitment
Best Practices
Parent Committees
Juvenile Court Liaison
SPED Matters
Curriculum Alignment with SOLs

Rockbridge County Public Schools, Lexington, VA
Assistant Principal at Rockbridge County High School (1995-2000)
Student Scheduling
Curriculum/Instruction
School Improvement
Student Discipline
Teacher Mentors
Child Study/504/SPED Committees
Student/Parent Committees

Rockbridge County Public Schools, Lexington, VA
Special Education Teacher at Rockbridge County High School (1992-1995)
Revised SPED Curriculum
Child Study/504 Committee
Best Teaching Practices
Teacher Collaboration
Student Scheduling for SPED Students
Special Education Federal Review

Rockbridge County Public Schools, Lexington, VA

Special Education Teacher at Rockbridge High School (1983-1992)
Department Chairperson
Student Scheduling for SPED Students
SPED Curriculum Alignment with Regular Education Curriculum
Developed Individualized Education Plans for SPED Students
In-services for SPED and Regular Education Teachers Concerning SPED Issues
Ad Hoc Committees

RESEARCH SKILLS

Extensive knowledge of SPSS

PROFESSIONAL QUALIFICATIONS

Division Superintendent License (2006)
Post Graduate Professional License (2005)
Secondary Middle School Principal
Middle School Principal
Specific Learning Disabilities K-12
Mental Retardation K-12

IN-SERVICE PROFESSIONAL PRESENTATIONS

Instruction and Educational Support Services (2006)
School Crisis Planning (2006)
Implementing Standards of Learning (2005)
Differentiated Instruction/Block Scheduling (2004)
School Restructuring (2002)
Web-Based Resources (2001)
School Improvement: The What and How (1998)
Curriculum Alignment (1998)
High School Transitioning for 9th Graders (1997)

REVIEWS

Review of **Partners in Educating Children and Youth: Resource Guide for Practitioners** by Sandra Christenson. Department of Education, October 2001

PROFESSIONAL AFFILIATIONS

National Association of Secondary School Principals
Association for Supervision and Curriculum Development
National Education Association
American Education Research Association
Council for Exceptional Children

SKILLS/INTERESTS

Computer skills include: Word, Access, Excel, Powerpoint, Microsoft Publisher, and Microsoft Front page