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## Accommodation and Curriculum Modification for Students with Special Needs: A Study of Teachers' Attitudes

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Accommodation and Curriculum Modification for Students With Special Needs: A Study of  
Teachers' Attitudes

A Dissertation

Submitted to the Graduate Faculty of the  
University of New Orleans  
in partial fulfillment of the  
requirements for the degree of

Doctor of Philosophy

in

Special Education

by

Ramona Diane Williamson

B.A., Nicholls State University, 1983  
M.Ed., University of New Orleans, 1994

December 2011

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## **Dedication**

This dissertation is dedicated to my mother, Virginia Rae Harmeyer Williamson, without whose help, encouragement, support and late night proof reading it would not have been completed. I am proud to be her daughter as well as her colleague.

## **Acknowledgement**

I would like to extend my appreciation to my committee and all of the faculty and staff who have been so supportive of me throughout my many years at U.N.O. I would especially like to thank my co-chair Mary Cronin who always believed I would finish, someday. Kyle Scafide is a childhood friend who should have run when I asked him to serve as my methodologist instead agreed and did a fabulous job. Thank you to my committee members, Paul Bole, Jan Janz, and Kate Reynolds for their excellent suggestions, support, and assistance. Thank you also to Franz Reneau for his patient assistance with statistics. A very big thank you goes to Sonja Yates for all of her last minute help over the past decade and more. Finally, thanks to my family who have supported me through this in many ways, from “Family Copy Day at the Library” to giving me a pass on family functions. Thank you to my cousin, Carrie, for making my conceptual framework and to my dad for putting-up with my mother’s absence. Thank you every one.

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## **Abstract**

The purpose of this study was to examine the attitudes of teachers towards providing accommodations and modifications required for students with special needs in general education classes. The study also examined the differences between these educators' willingness, preparedness, and selected demographic and descriptive characteristics, which included teacher education, educational setting, and support provided for inclusion. As such, it contributed to both the theory and the practice of teaching students with disabilities in inclusive settings.

The sample included willing general and special education teachers in one suburban school district in the southeastern United States. The instrument was a modified version of the Teacher Acceptability and Use Scale (TAUS) (Boulton, 2003).

Statistical analysis revealed no significant difference in willingness between special education and general education teachers, although special education teachers perceived themselves as slightly more prepared than general education teachers to make accommodations and modifications to the general curriculum for the student with special needs included in the general education classroom. In conclusion, the results of this study indicate that teachers' perceptions of their preparedness for accommodating students with special needs has improved in recent years.

**Key words:** accommodations/modifications; inclusion; preparedness; special education; teachers' perceptions; willingness

# **Chapter 1**

## **Introduction**

### **Statement of the Problem**

Given the increasing diversity in today's classrooms and the problems encountered in efforts to educate students with special needs in inclusive classrooms, teachers must address the needs of a wide variety of students by using modifications and accommodations appropriate for individuals with different backgrounds, learning styles, abilities, and disabilities in widely varied learning contexts. Thus, the latest available statistics from the 2007 Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Improvement Act (IDEIA, 2004, 2006) show that in the 2006 school year approximately half of all special education students were served in the general education classroom for more than 80% of the school day and these numbers continue to rise. According to Hoover and Patton (2008),

The contemporary trend in education for all learners, including those with disabilities, is education within a multi-layered system using the learner's response to instruction as the basis for making instructional and diagnostic decisions...The nature of special education has changed appreciably over the past several decades. As a result, the role of special educators needs to be examined and further developed to provide the most effective education for all learners at-risk and those with high and low incidence disabilities. (p. 195)

Inclusion no longer means the mere presence of the student with special needs in the general education classroom, but now requires that these students master the general curriculum. Students with vastly different abilities must be able to work within the same comprehensive

curriculum based on grade-level expectations, which are statements of what all students should know or be able to do by the end of each grade, pre-K through grade 12. In order to ensure the implementation of IDEIA (2004), every teacher must be able to modify the curriculum to meet the needs of each student while at the same time, the general education teacher must continue to teach, facilitate, and assess the progress of every student in the class. In this context Yell (1998) asked,

If a differentiated education is provided in the same place as everyone else, on the same content as everyone else, with adapted instruction that is not unique to the student with disabilities, is the student receiving a special education? And if the educational experience (where, what, and how) doesn't need to be special, or if everyone is getting a special education why does the law differentiate between protected and unprotected students with disabilities? (p.201)

A recent study by Zigmond, Kloo, and Volonino (2009) indicated that very little has changed regarding instruction in the general education classroom since Yell asked the question. Whole-group instruction is still the method of choice for many general education teachers, and even when a special education teacher is present, instruction is not significantly differentiated for the student with special needs. General education teachers are starved for practical, viable instructional practices that will help them effectively teach students with disabilities, while improving instruction for all students.

Given this context, perhaps the most critical issue in special education today is the ability of the student with special needs to gain full access to the general curriculum.

## **Teachers' Attitudes Toward Inclusion**

Santoli, Sachs, Romey, and McClurg (2008) found that much of the research on inclusion indicates that the attitudes of school personnel toward exceptional students are of primary importance for successful inclusion and that the attitudes of general education teachers and special education teachers have a direct impact on student outcomes. Research on teachers' attitudes towards providing modifications and accommodations for students with special needs in general education classes tends to be limited to studies of inclusion, showing that teachers who feel negatively towards students with disabilities or who have not been trained in the appropriate strategies are less likely to be successful.

Further, Avramidis and Kalyva (2007) discovered that teachers who have little or no professional development in teaching students with special needs have significantly less positive attitudes concerning inclusion than those with extensive professional development. Also, the higher the grade level, the less likely teachers are to initiate modifications in their classrooms (Cawley, Foley, & Miller, 2003; Sze, 2009). Henning and Mitchell (2002) concluded, "Teachers' perceptions about exceptional students may be the factor with greatest effect on student success" (p.28).

A recent study by Kosko and Wilkins (2009) suggested that the professional development received by general educators does not adequately prepare them to effectively implement inclusion-based practices. They determined that at least 8 hours of professional development in a 3-year period significantly improved the educator's self-perceived ability to provide accommodations and modifications for students with individualized education programs (IEPs) in the general education classroom. According to Gilbertson Witt, Singletary, and

VanDerHeyden (2008), some of the factors that influence teachers' decisions to implement accommodations are:

- effectiveness;
- time and resources;
- theoretical orientation of the modification; and
- ecological intrusiveness.

To be effectively implemented in the general education setting, interventions must be considered both feasible and acceptable by teachers.

Teachers would like for classes to be inclusive, but the realities of everyday school life dictate otherwise (Van Reusen, Shoho, & Barker, 2001). Thus, Scruggs and Mastropieri's (1996) meta-analysis of 28 studies conducted from 1958 through 1995 found that although teachers overwhelmingly favored providing support for students with disabilities in the general education classroom, just one third of those teachers actually provided such support. Only one third of the teachers felt that they had the time, preparation, resources, and skills needed for successful instruction. Their conclusions are supported by the results of several recent studies.

For example, Leyser (2010) found that:

Teachers need training at the pre-service and in-service levels in research-based instructional practices that yield effective outcomes for all students. Additional training and practice are also desired for special education teachers as they assume an active role in the general education curriculum. (p. 165)

Similarly, Sze (2009) stated:

The shaping of positive attitudes toward students with disabilities is an important aspect of the education of pre-service teachers. Teacher training in the awareness of disabilities

and appropriate strategies for teaching students with disabilities has a positive impact on academic success. .... A careful examination of the attitudes of educators represents a starting point for coming to terms with teaching students with differences. It is the beginning of a move toward truly inclusive education. It is the hope that an introduction to special education course will benefit pre-service teachers in gaining an understanding of students with special needs, thus increasing their comfort level with diverse learners over-all. (pp. 53-55)

Moreover, Leyser (2010) determined that principals often receive little or no instruction in special education practices during their professional preparation and are essentially untrained in special education and mainstreaming, and consequently may be less able to assist their faculty with inclusion of students with special needs.

An examination of attitude studies of general education teachers also revealed that lack of knowledge of disabling conditions affected the ability of these teachers to accept students with disabilities and differences (Cook, Tankersley, Cook, & Landrum, 2000; Kosko & Wilkins, 2009). Students with special needs who perform at or near grade level are more likely to be successful in their general education classes. Successful students must be able to use graphics, draw conclusions, make predictions, identify unfamiliar vocabulary, identify main ideas, supporting details, point of view and critically evaluate information. Gersten, Baker, Smith-Johnson, Dimino, and Peterson (2006) found that students with learning disabilities (LD) learned key events in history and understood the importance of these events if provided with comprehensible and accessible instructional materials rather than relying on textbooks. Instructors incorporated numerous opportunities for students to interact with peers and the teacher during the lesson (rather than relying on lecture and whole class discussion) and



determined that students did indicate increased understanding of concepts presented with the experimental materials and methods.

Along the same lines, Bernstein (2001) stressed that the student with special needs must be able to access text in content-area classes. In order for students to read textbooks, newspapers, and magazines effectively, pass state assessment exams, and complete research projects, Bernstein identified several strategies for assisting students with difficult text, including scaffolding and the use of a variety of materials. Student success in the upper grades, particularly in content-area classes such as social studies and science, is often hampered by the poor reading ability of many students with special needs, and general education teachers are often unaware of materials such as recorded textbooks that are available to the student with special needs.

Accommodations and modifications must be available to the student with special needs as they deal with other problems that they encounter in content-area classes, including unknown vocabulary, lack of background knowledge, high readability levels of texts, difficult concepts and terminology, and lack of understanding of text structure (Arillen, Gable, & Hendrikson, 1996 pp. 7-13). Young people entering the workforce in the twenty-first century are required to read and write more than at any other time in history, yet based on the National Assessment of Educational Progress (NAEP) reports of 2007 (United States Department of Education), one third of fourth-grade students and one fourth of eighth-grade students struggle to achieve basic literacy skills. This figure includes both general education and special education students.

### **Theoretical/ Conceptual Framework**

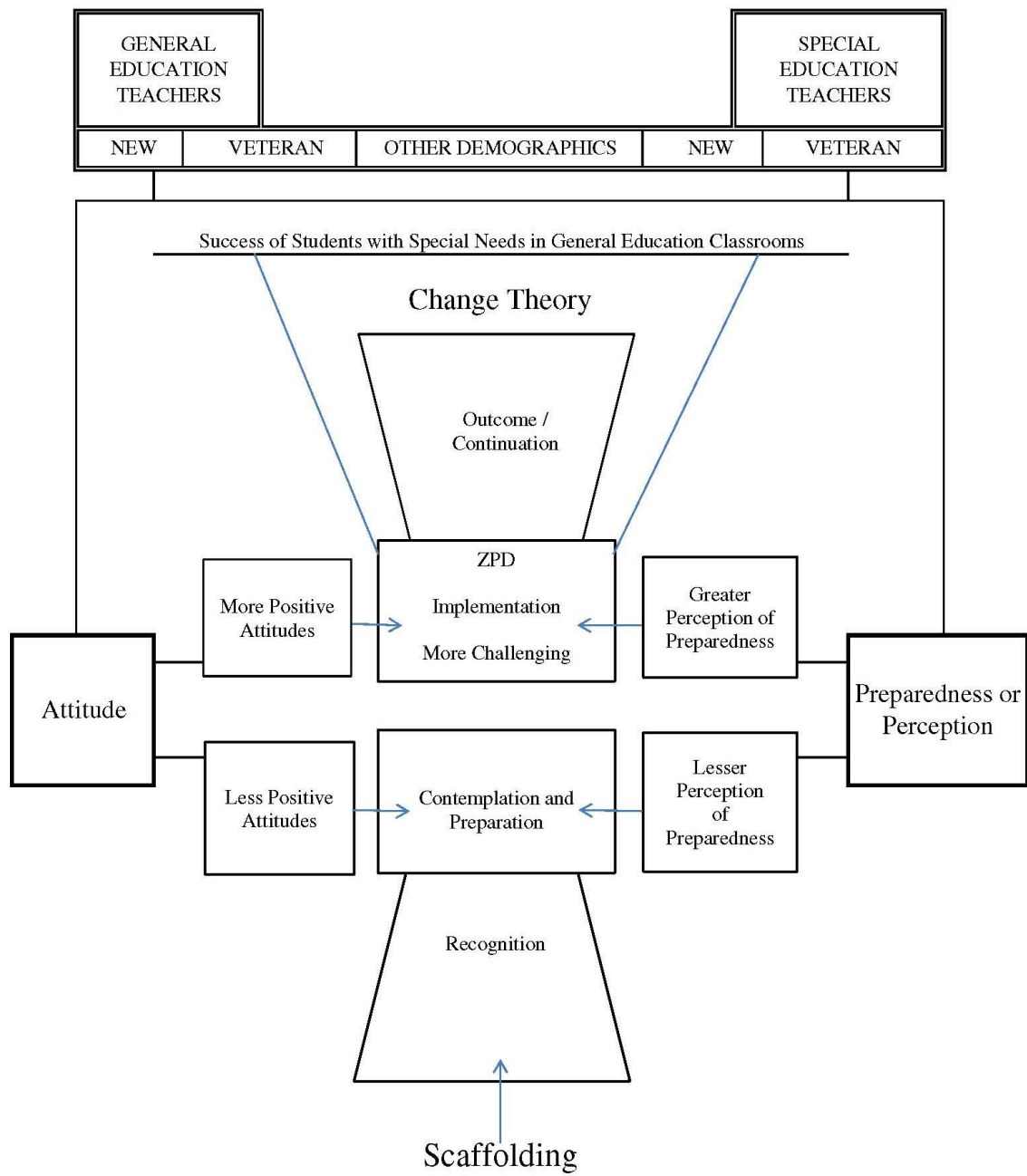
The theoretical/conceptual framework of this study was multifaceted, embracing both change theory and Vygotsky's theory of socio-cultural influence on cognitive development, in which he theorized that a child must reach a certain level of cultural development in order for

learning to occur, as learning was dependent on social interaction (Moll, L.,1990, p.9). Because societal differences have accelerated as computer technology and the Internet have transformed the world, the student of today will have to compete and collaborate in a global economy with people of many cultures and languages, using skill sets that are still undetermined. To that end, tomorrow's workers must possess the knowledge and ability to think critically and creatively to be able to solve the problems that they will confront. Change in both curriculum and teaching methods is urgently needed as schools struggle to prepare students for the challenges of the 21 century.

Fullan (2001) identified five types of educational change: teacher change-refers to any personal alteration of the individual teacher (i.e. social, emotional or cognitive growth)

- curricular change-from an alteration in classroom instruction to change in district or state standards
- systemic change-change within the institution, such as the impact of legislation
- Innovation-new materials or teaching practices (i.e., audio/video capability in the classroom)
- Reform-fundamental changes to an entire system. ( pp.60-72)

One possibility for change is standards-based district-wide reform initiatives. This theory assumes that educational growth will automatically happen on a large scale by aligning key components such as identification of world-class standards, a system of assessments based on these standards, development of curriculum based on these standards, and investment in ongoing professional development for school leaders and teachers. This theory is based on producing more and better individuals as the route to change the system, rather than the culture. Fullan (2007a, p. 35) disagreed, stating, "The notion that external ideas alone will result in change in



the classroom and school is deeply flawed as a theory of action”

Similarly, Hargreaves (2003) argued,

Instead of fostering creativity and ingenuity, more and more school systems have become obsessed with imposing and micromanaging curricular uniformity. In place of ambitious missions of compassion and community, schools and teachers have been squeezed into the tunnel vision of test scores, achievement targets, and league tables of accountability.

(p. 1)

This is not to say that standards-based reform theories have no merit, but that they are incomplete and ignore school or district culture.

A second possibility for change is that of developing professional learning communities that focus on the school and involve teachers and learners working together to improve learning conditions. Some components of this initiative are a focus on learning, a collaborative structure, a collective inquiry into best practice, a commitment to continuous improvement and a focus on results. Outside agents “play an important part in initiating change projects” (Fullan, 2006, p.6) and communities of change help teachers constantly search for and promote new ways of making improvements. However, according to Fullan (pp. 6-7), although this theory is quite good, there are three concerns about its efficacy. These include (a) superficiality, or not going deeply enough into learning; (b) treating communities of change as the “latest innovation” in educational change; and (c) being miscast as changing the cultures of individual schools rather than creating a new school district culture.

A third possibility is a “qualifications” framework that focuses on the development and retention of quality leaders. This includes transforming teacher compensation, reinventing teacher preparation, overhauling licensing and certification, and strengthening leadership and

support. Fullan (2001) noted that there is no single way to create change. He mapped the change process centered on outcomes categorized as “student learning” or “organizational capacity”:

- Initiation (the decision to embrace change) is the beginning of student learning, where the variables of scope and participants of change are determined,
- Implementation (the initial attempt at change comprising the first three years) is the second step of learning, where ideas are put into practice, and
- Institutionalization (the complete embrace of change by the school or district, which may take as long as 5 to 7 years) is the third step, where change becomes a reality and student learning is synthesized. ( pp. 50-51)

Fullan (2007a, p. 35) asserted that teachers must take ownership of change in order for it to happen. This process has been documented in a study by Hart (2009), which examined the process of change in a secondary school from a traditional lecture-based teaching method to a student-centered problem-solving approach to delivery.

The results of this study showed that the teachers’ experiences of working within a culture of change echoed the theories of Fullan (2005) in his discussion of communities of change...Change can take place if it is focused, has the acceptance of a majority of players, and takes place over an extended time. (Hart, p. 100)

Conversely, according to Udvari-Solnar and Thousand (1996), Vygotsky argued that cognition develops in the context of social interaction and then becomes internalized by the individual; thus learning is a group activity, and collaboration with others is necessary for cognitive growth. Vygotsky explored the nature of learning, the intricacies of interaction of human action, and socio-cultural influence on cognitive development. His ideas include the concepts of the zone of proximal development (ZPD), which refers to the optimal level of

difficulty where a learning task cannot be achieved independently, but can be achieved with support, and the socio-cultural view of cognition.

From this, Vygotsky developed five general tenets:

1. Education is intended to develop the individual's personality;
2. Human personality is linked to its creative potential: consequently, to develop human personality, the educational system must establish conditions for discovering and drawing out the creative potential of students;
3. Values are developed in the process of teaching and nurturing others;
4. The teacher directs and guides, but does not dictate his or her own will on the learner; and
5. The most valuable methods for a student's teaching and learning correspond to his or her individual characteristics; therefore, methods of teaching cannot be uniform. (pp. 188-192)

According to Vygotsky (Robbins, 2001, pp.68-69), in order to learn, the child must have support. A framework of multiple scaffolds, or temporary supports, allows each student to stay within his/her ZPD. The ZPD should constantly change as a student learns; therefore, curricular materials need to be highly adjustable (O'Neill, 2000). Scaffolding is an important aspect of universal design (UD), especially in the areas of reading, organizing, and writing. Some readily accessible computer scaffolds for students include software with word prediction for writing, scanners linked to optical character recognition, speech synthesis which can read printed materials, and voice recognition software that can convert speech into text. Programs such as these allow students with disabilities to stay in their ZPD, demonstrating knowledge in spite of their disabilities.

Together neuroscience, ZPD, scaffolding, and universal design in areas other than education build a case for universally designed curricular materials as a means of access to the general curriculum for all students (Nolet & McLaughlin, 2000, pp 89-90). The Individuals with Disabilities Education Act (IDEA, 1997) requires the IEP team to determine, and the public agency to provide, the accommodations, modifications, supports, supplementary aids and services needed by each child with a disability to successfully be involved in and progress in the general curriculum, achieve the goals of the IEP, and successfully demonstrate his or her competencies in state and district-wide assessments. In a recent study of theoretical frameworks, Pressick-Kilborn, Sainsbury, and Walker (2005) found that if the “underlying assumption is that learning and motivation are socially and culturally situated, the design of research studies needs to encompass participation in authentic and purposeful activities” (p. 25). Change theorist Peter Senge (2001) maintained that

As educational change in the United States is driven by public demands for increased performance on standardized tests, schools and teachers find themselves forced to boost workloads continually while also taking more and more class time to prepare students for the tests on whose outcomes their budget and even their positions may depend. (p. 27)

Change, then, becomes an imperative. The very nature of classroom instruction must be revolutionized from a whole-group approach of passive learning in which the teacher lectures and students listen or rely on text to complete outlines and worksheets, to a student-centered problem-based model in which the student takes an active role in learning. Teachers must accept and internalize the need for change in the way students with special needs are taught in the general education classroom. Also, significant administrative support is essential in order for the general education teacher and special education teacher to have time plan and prepare

appropriate accommodations and modifications for the successful inclusion of students with special needs. Only in this way will future students be able to assimilate the vast reserve of rapidly changing information.

Successive legislation (IDEA, 2004; IDEIA regulations, 2006) and court cases such as *Daniel R.R. v. State Board of Education, El Paso Independent School District, 1989; Sacramento City Unified School District v. Rachel Holland, 1994; Greer v. Rome City School District, 1991; Oberti v. Board of Education of Borough of Clementon School District, 1992*); *Mavis v. Sobel, 1994*; and *Gaskin v. Pennsylvania, 1994-2005* have refined and redefined expectations for inclusion of the student with disabilities in the general education classroom, as well as the roles of both general education teachers and special education teachers working with inclusion.

### **Need for the Study**

There was a lack of research in the area of teachers' attitudes toward accommodations and modifications of the curriculum for students with special needs in the general education classroom. Because of increasing diversity in today's classrooms and the problems encountered in efforts to accommodate students with disabilities in inclusive classrooms, teachers must address the needs of a wide variety of students by using modifications and accommodations appropriate for individuals with different backgrounds, learning styles, abilities, and disabilities in widely varied learning contexts. Therefore, this study was significant because data generated contributed to an understanding of teacher attitudes toward accommodations and modifications of the curriculum for students with special needs in the general education classroom.

### **Purpose of This Study**

The purpose of this study was to examine the attitudes of teachers towards providing accommodations and modifications for students with special needs in general education classes.



The study contributed to both the theory and the practice of teaching students with disabilities in inclusive settings by

- investigating an area of instruction that continues to evolve,
- providing empirical data that may prove useful in evaluating the effectiveness of various accommodations and modifications for students with disabilities, and
- providing information for teacher trainers about areas of concern to teachers currently in the classroom.

### **Research Questions**

The study examined the following questions regarding the success of students with special needs in general education classes: RQ 1: Are there significant differences between the attitudes of general education teachers and special education teachers toward providing the necessary accommodations and modifications of the curriculum?

RQ 1.1 Are there significant differences in attitude between new special education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.2: Are there significant differences in attitude between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.3: Are there significant differences in attitude between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.4: Are there significant differences in attitude between veteran general education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2: Are there significant differences about the perception of preparedness between general education teachers and special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.1: Are there significant differences about the perception of preparedness between new special education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.2: Are there significant differences about the perception of preparedness between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.3: Are there significant differences about the perception of preparedness between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.4: Are there significant differences about the perception of preparedness between veteran general education teachers and veteran special education teachers toward making accommodations and modifications of the general education curriculum for students with special needs?

## Definitions

*Accommodation* is defined as a service or support provided to help a student fully access the subject matter and instruction and demonstrate what he or she knows. Accommodation is learning to do things differently from other students because of a handicap, impairment, or disability; the tendency to change one's way of thinking to fit a new objective or stimulus (Sacks, 2001, p.185; Nolet & McLaughlin, 2000, p. 71).

*Adaptation* is defined as a modification to the delivery of instructional methods and intended goals of student performance that does not change the content but does *slightly* change the conceptual difficulty of the curriculum. According to Nolet and McLaughlin (2000) adaptations abound in inclusive classrooms, most often in the form of differentiated lessons. Furthermore, they asserted that adaptations require more effort from teachers than some other types of accommodations and modifications.

*Assistive Technology (AT)* is defined by IDEIA § 602 (2004) as “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities” AT is generally used by special education teachers, whereas universally designed approaches are implemented by general education teachers (OSERS, 1999). Ashton (2000) warned that AT does not refer only to computers, identifying three types of AT:

- adaptations of generic devices,
- additions to generic technology, and
- devices and or equipment designed to do things that generic devices cannot.

*Continuum of Alternative Placements* refers to legislation requiring each public agency to ensure that a continuum of alternative placements is available to meet the needs of children with

disabilities for special education and related services. The continuum must include instruction in general education classes, special classes, special schools, home instruction, and instruction in hospitals and institutions and make provision for supplementary service such as resource room, or itinerant instruction to be provided in conjunction with regular class placement (IDEIA 2004, § 300.115).

*Curriculum* is defined by Nolet and McLaughlin (2000, pp. 14-15) as the courses of study offered by an educational institution. In formal education, a curriculum is the set of courses, and their content, offered at a school or university. A curriculum is prescriptive, and is based on a more general syllabus, which merely specifies what topics must be understood and to what level to achieve a particular grade or standard. As an idea, curriculum stems from the Latin word for *race course*, referring to the course of deeds and experiences through which children grow to become mature adults.

*Differentiation* is defined by Nolet and McLaughlin (2000) as a way to maximize each child's growth through a process of teaching and learning for students of differing abilities in the same classroom recognizing students' varying background knowledge, readiness, language, preferences in learning, and interests; and reacting accordingly.

*General Curriculum* is defined as "the same curriculum as for children without special needs" (IDEIA 2004, § 300.115).

*Inclusion/Inclusive Education* is the provision of services to students with disabilities, including those with severe impairments, in the neighborhood school, in age-appropriate general education classes, with the necessary support services and supplementary aids (for the child and the teacher) both to ensure the child's success academically, behaviorally, and socially and to prepare the child to participate as a full and contributing member of the society. "Inclusion is

when students with special learning and/or behavioral needs receive their entire academic curriculum in the general education program. This is different from mainstreaming, which is when students with disabilities spend a portion of their school day in the general education program and a portion in a separate special education program” (Idol, 2006, p. 4).

*Learning Disability* is defined as “a type of special need where the student has a specific cognitive disability in one or more subject areas” (Avramidis & Kalyva, 2007, p. 369). It is also described by Jost (1993) as a condition that makes it hard for someone of otherwise normal intelligence to read, write, or work with numbers (p. 1082).

*Least Restrictive Environment (LRE)* from IDEIA (2004) or P. L. 108-446 is defined in general as follows ... “to the maximum extent appropriate, children with disabilities ... including children in private or parochial institutions or other care facilities, are educated with children who are not disabled and special classes, separate schools, or other removal of children with disabilities from the regular education environment occurs only when the nature and severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily” (TITLE I/B/612/a/ 5). A new provision was included, stating that “a child with a disability cannot be removed from education in age-appropriate regular classrooms solely because of needed modifications in the general curriculum.” ... “this provision should not be read to require placement of a child with a disability in a particular regular classroom or course if more than one regular age-appropriate classroom or course is available in a particular grade or subject” (The 1999 IDEA regulations §612(a) (5); sec.300.114 (a) (2) (ii)).

*Mainstreaming* refers to the temporal, instructional, social integration of eligible students with disabilities with normal peers, based on ongoing, individually determined educational

planning and programming processes, and requires classification of responsibility among regular and special education administrative, instructional and supportive personnel (Kauffman, Gotlieb, Agard, & Kukic, 1975). This terminology/setting is no longer used and is now generally referred to as inclusion.

*Manipulatives* refer to materials that students may touch, maneuver, or otherwise manipulate. Manipulatives are often used to convey abstract information in concretely. A manipulative that could be used in math would be counters or fraction pieces.

*Modification* is a change in either the specific subject matter taught or in the expected performance of the student (Nolet & McLaughlin, 2000). In most developed countries, educators are modifying teaching methods and environments so that the maximum number of students is served in general education environments. Special education in developed countries is often regarded less as a place and more as a range of services, available in every school. Integration of students with special needs into the general education classroom can reduce social stigmas and improve academic achievement for many students (Ravitch, 1995).

*New Teacher* is defined as a teacher with 0-5 years of experience.

*Regular Education Initiative (REI)* is defined as the instructional setting where services for children with disabilities are delivered in the regular classroom environment (Semmel, Abernathy, Butera, & Lesar, 1991).

*Response to Intervention (RTI)* has been broadly defined as a process in which students are provided quality instruction, their progress is monitored and those students who do not respond appropriately are provided additional instruction. Those students who still do not respond appropriately are considered for special education (Bradley, Danielson, & Doolittle, 2005).

*Scaffolding* or *Instructional Scaffolding* refers to a systematic way to transfer control of the skill or knowledge being taught from the teacher to the student if the student lacks sufficient prior knowledge to connect new information. Scaffolding is also defined as the provision of sufficient to promote learning when concepts and skills are first being introduced to students. These supports are gradually removed as students develop autonomous learning strategies, thus promoting their own cognitive, affective and psychomotor learning skills and knowledge. Teachers help students master a task or a concept by providing support. This support can take many forms such as outlines, recommended documents, storyboards, or key question (Nolet & McLaughlin, 2000, p. 39).

*Specially Designed Regular Instruction (SDRI)* is defined in the 2006 IDEIA Regulations as:

- Adapting, as appropriate to the needs of an eligible child under this part, the content, methodology, or delivery of instruction—
- To address the unique needs of the child that result from the child's disability; and
- To ensure access of the child to the general curriculum, so that the child can meet the educational standards within the jurisdiction of the public agency that apply to all children. (Regulations: Part 300/A/300.39/b/3)

*Special Education* is defined as specially designed instruction that meets the unique needs of an exceptional child. Special materials, teaching techniques, equipment and/or facilities may be required. Additionally, special education is defined in the 2006 IDEIA regulations as

Specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability, including:

- instruction conducted in the classroom;

- in the home;
- in hospitals;
- institutions;
- in other settings; and
- instruction in physical education. (IDEIA 2006 Regulations, Part 300/A/300.39/a/1(1)).

*Special Needs* is defined as any disability, such as a speech or hearing impairment, a cognitive disability, a physical impairment, or a specific LD that would necessitate specialized instruction or require an IEP (Kosko & Wilkins, 2009).

*Supplementary Aids and Services* are defined as “aids and services, or other supports that are provided in regular education classes or other education-related settings to enable children with disabilities to be educated with non-disabled children to the maximum extent appropriate in accordance with provisions concerning least restrictive environment” (IDEIA Regulations, §602 (33)).

*Universal Curriculum Design* is defined by Nolet & McLaughlin, 2000, pp.89-90) as “Designed –in flexibility to accommodate the instructional needs of many diverse learners in a single classroom”.

According to the reauthorization of IDEA November 19, 2004

“(35) Universal Design - The term universal design (UD) has the meaning given the term in section 3 of the Assistive Technology Act of 1998, P.L. 105-394 (29 U.S.C. 3002).

(17) Universal Design - The term "universal design" (UD) means a concept or philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities, which include products and services that are



directly usable (without requiring assistive technologies) and products and services that are made usable with assistive *technologies*” (P. L. 105-394, § 3, Nov. 3, 1998, 112 Stat. 3631; P. L. 106-402, title IV, §401 (b) (4) (A), Oct. 30, 2000, 114 Stat. 1738).

*Veteran Teacher* is defined as a teacher with five or more years of experience.

### **Limitations of This Study**

This study was limited to a comparison of groups of teachers in one suburban school district in the southeastern United States. It included general and special education teachers. The results are not generalizable to teachers from differing districts.

### **Delimitations of This Study**

This study was limited to general and special education teachers in one suburban school district in the southeastern United States. This district was chosen based on school enrollment, students with disabilities, and school policy endorsing inclusion. The results can only be generalized to districts having populations with similar traits. The results were comparative and descriptive. They did not provide a representation of cause-effect relationships.

### **Organization of This Dissertation**

Chapter 1 contains the introduction, problem statement, definitions and history of teacher attitudes toward inclusion, conceptual/theoretical framework, need for this study, and purpose of this study, definition of terms, hypothesis statements, research questions, and significance of this study, study limitations, study delimitations, and organization of this study.

Chapter 2 presents a review of the literature related to teachers’ attitudes towards modifications and accommodations for special needs students in the general education classroom.

Chapter 3 describes the methodology of the study, the population sample, instrumentation, data-collection procedures, and data analysis.

Chapter 4 presents, analyzes, and summarizes the findings of the study.

Chapter 5 provides a summary of the study, and discusses the findings and implications, including recommendations for future research.

## **Chapter 2**

### **Review of the Literature**

Inclusion and participation are essential to human dignity and to the enjoyment and exercise of human rights. Within the field of education, this need is reflected in the development of strategies that seek to bring about a genuine equalization of opportunity. (Salamanca Statement, 1994).

The review of literature presented in this chapter provides the background for the theoretical framework on inclusion, selection of research questions, and methodology of the present study. This review covers four major topics: (a) history of treatment of people with disabilities, (b) legislation and judicial aspects of special education pertaining to inclusion (c) best practices of inclusion, and (d) the attitudes of both general and special education teachers regarding their ability to provide adequate accommodations and modifications for learners with special needs in the general education classroom.

The purpose of this study was to determine the attitudes, training, and experiences of general education and special education teachers toward adapting the general curriculum for inclusion of students with special needs in the general education classroom in 2011. Also, the study extended the literature on attitudes of general education teachers and special education teachers toward accommodations and modifications made in the general education classroom for the student with special needs, and discovered the differential impact of pre-service or in-service teacher education. The research questions and hypothesis are stated at the end of the review of literature.

## History

According to *Perspectives on the Historical Treatment of People with Disabilities* (Adams, 2007), from the first century to approximately 1700, people with disabilities were thought to be possessed by the devil, or sinners. As a result, they were often tortured, burned at the stake, or just left to die. Many of the women executed as witches may have had some form of mental illness or age-related disease. In England, the Poor Laws forced people with disabilities to beg in order to support themselves. They were given a cap in which to collect alms, hence the origin of the term *handicap*. This term is generally considered offensive today.

During the 1800s and into the early 1900s, various attempts were made to improve the condition and treatment of people with disabilities, especially the deaf, blind and physically handicapped. The first school for the deaf was opened in the United States in 1817 in Hartford, Connecticut. The Perkins School for the Blind opened in Boston in 1832, and the Gallaudet College for the Deaf, Dumb, and Blind at Columbia Institute was given the authority to confer college degrees by President Lincoln following the Civil War, to become the first college in the world to confer degrees on people with disabilities. Generally, however, between 1800 and the 1920s, people with disabilities continued to be treated as inferior beings and hidden away or displayed as freaks. During the 1930s and 1940s many people with disabilities were put into institutions and subjected to sterilization, shock therapy, and other inhumane treatments.

In Germany, the Prevention of the Genetically Diseased Offspring Law was passed in 1933, whereby the Germans began the systematic sterilization of its disabled population. Approximately 400,000 people were sterilized in this program. Eventually the sterilization program escalated in 1939 to the Euthanasia Program, killing 2,000,000 people in total. Sterilization was never classified as a war crime.

In the mid-1950s, de-institutionalization of residents of state mental hospitals began. Investigation of state institutions often revealed poor conditions, with the result that funding was moved to community-based programs and inmates of state institutions were released. Between 1955 and 1975, more than 365,000 patients were released from these hospitals throughout the United States and dumped in rooming houses, inner-city hotels, and on families who often were not able to care for them. Deprived of regular access to medication and treatment, many became homeless and were then re-institutionalized in nursing homes and chronic-care facilities. This was especially true of people with schizophrenia and similar conditions, who may have become violent without medication and were then hospitalized or who committed crimes and were incarcerated.

Even today, this is an ongoing problem for many municipalities, and a real solution has not been found for individuals who cannot live independently.

**Early approaches to special education/inclusion.** In the first half of the 20<sup>th</sup> century in the United States, many children with special needs received no education, being either kept at home by their families or placed in residential care facilities that concentrated primarily on children's physical needs. These children were sometimes seen as an embarrassment to the family, and their very existence was often denied or hidden.

By the mid-1950s, this attitude began to change, and more students with disabilities were included in local school systems. These children were usually identified only if they had severe physical and/or mental disabilities, and were usually served in one or two multi-exceptionality classrooms. Early legislation resulted from a better understanding of various physical and mental disabilities.

With the establishment of the Civil Rights movement of the 1960s, legislation addressed the civil rights of people with disabilities, creating programs for students with special needs (Adams, 2007). A primary role of special educators in the 1960s was to educate learners with specific disabilities, separated by categories and served in separate self-contained classes taught using special materials and strategies.

During the 1970s, placement issues were brought to light by Dunn (1968) and other researchers (e.g. Kauffman, et al., 1975) who questioned the effectiveness of the self-contained class. As a result, students began to be placed in the general education classroom, requiring special educators to assume new roles in implementing instruction using more direct teaching strategies. Students were “pulled out” of general education classes for a few hours each day to receive differentiated instruction (Adams, 2007).

**Special education today.** The 1980s saw continued movement toward the strengthening of education of students with disabilities in the general education classroom on a more full-time basis. Inclusive education expanded during the 1990s and into the 2000s, with inclusive education being the norm today (Hoover & Patton, 2008). From this small beginning, the evolution of special education in the United States continues. By 2008, 7.1 million children from birth to 21 years of age were receiving services from 46,000 teachers and thousands of other professionals. Many of these children will become productive members of society because of current and evolving practices in education (Guernsey & Klare, 2008).

## **Legislation**

**The Civil Rights Act of 1964.** Although *Brown v. Board of Education* (1954) ensures the right of all children to education on equal terms, the first case guaranteeing civil rights for children with disabilities was *Pennsylvania Association for Retarded Citizens v. Commonwealth*

*of Pennsylvania* (1972). In this case, the state of Pennsylvania entered into a consent decree recognizing the right of children diagnosed with mental retardation to receive an education. Parents were provided with significant due process and procedural rights that set a detailed model for future advocates and found national application in IDEA (Guernsey & Klare, 2008).

**Elementary and Secondary Education Act of 1965.** Other laws that greatly affected special education included the Elementary and Secondary Education Act (ESEA) of 1965, which provided money to schools and other agencies serving economically disadvantaged children. This act was amended in 1966, and eventually became the heart of the Education for All Children Act. ESEA was again amended in 2002. Further, the Handicapped Children's Early Education Assistance Act or P.L.90-538 (1968) advocated for the development of model programs in early intervention. The Education of the Handicapped Act (EHA) of 1970 supplied money to states and universities for research and for training of teachers of the handicapped. Amended in 1974, the EHA listed specific requirements for services that states must provide for students with disabilities from preschool through secondary levels. It was in this act that least restrictive environment (LRE) was first mentioned.

In 1972, the Civil Rights Amendment of 1964 was amended to add “physical or mental handicap” to race, color, or national origin as illegal grounds for discrimination in any program receiving federal support. Section 504 of the Rehabilitation Act (1973) stated that a disability alone could not be the basis for excluding an individual from participation in any program receiving federal assistance.

**The Individuals With Disabilities Education Act (IDEA), 20 U.S.C. 14 et seq. (1975).** While LRE was first mentioned in the EHA, this act first mandated the education of students

with disabilities in the least restrictive environment (LRE). This is further discussed in the following legislation.

**The Education for All Handicapped Children Act of 1975.** The Education for All Handicapped Children Act of 1975, (P. L. 94-142), led to significant increases in the number of children receiving special education services. This act marked a unified, comprehensive, national policy with specific guidelines for serving the needs of special education students. The creation of the individualized education program (IEP) as a mechanism to ensure individualized programming for each student with special needs, is perhaps the most significant national educational policy of the 20<sup>th</sup> century. Federal law still dictates that special education students must be educated in the LRE, a term described by the United States Department of Education, Office of Special Education and Rehabilitative Services (OSEP, 1994) as

to the maximum extent appropriate, school districts must educate students with disabilities in the general education classroom with appropriate aids and supports, referred to as supplementary aids and services, along with their non-disabled peers in the school they would attend if not disabled, unless a student's Individual Education Program (IEP) requires some other arrangement. (Section 504, 34 C. F. R. § 104.34(a))

LRE established that it is a school district's statutory obligation to affirmatively demonstrate that a particular special education student cannot be satisfactorily educated in a general education class even with the use of supplementary aids and services (Lipton, 1994). The IEP, in turn, is designed to implement student-specific teaching strategies, adaptations, and modifications of the general education curriculum. According to Hulett (2009), six pillars constitute IDEA's essential support structure,

- a guaranteed free and appropriate public education (FAPE);



- an appropriate evaluation;
- active participation by parent and student;
- procedural safeguards for all participants;
- provision of educational services in the LRE;
- IEP.

**Regular education initiative and integrated services.** While federal legislation required more special education classes at the local level, in the late 1960s some authorities began to question the efficacy, efficiency, and even the idea of special education. An early and notable critic of special education services was Lloyd Dunn, past president of the Council for Exceptional Children (CEC). Specifically, in a 1968 article, *Special Education for the Mentally Retarded; Is Much of It Justifiable?*, Dunn stated that diagnostic and labeling procedures and homogeneous special education classes have probably done more harm than good by grouping children according to their labels. The move towards integrated services has continued to be of great concern ever since.

During the 1980s Congress, as well as many states, passed legislation guaranteeing the enforcement of civil rights for people with disabilities. Madeline Will (1986) assistant secretary for the Office of Special Education and Rehabilitative Services (OSERS) advocated the regular education initiative (REI), collaboration between general and special education, the provision of special services in the general classroom, and a commitment to serve all students. REI was based on the assumption that students are more alike than different and that good teachers can teach all students. According to Kavale and Forness (2000), physically separate education is inherently discriminatory and inequitable. The converse of this belief is that together is always better. As REI became full inclusion, emphasis shifted from providing services in the special

education classroom to providing all services in the general education classroom (Hoover & Patton, 2008; Kavale & Forness; Semmel et al., 1991; Will).

REI became a federal initiative seeking ways to link special and general education programs and to increase the number of special education students in mainstream classes (Stainback & Stainback, 1984). Critics of REI believed that it was unmanageable at the classroom level because it placed too many demands on the general education teacher (Idol, Nevin, & Paolucci-Whitecomb, 1986). Many special educators, on the other hand, favored REI and argued for a merger of the two systems, serving students with disabilities only in general education classrooms.

Fuchs and Fuchs (1994) identified two distinct groups that favored the REI. The first was “a high incidence group that included people with an interest in students with learning disabilities, behavior disorders, and mild-moderate mental retardation” (p. 295). They asserted that this group was characterized by a no-holds barred critique of special education, and a belief that special education must acknowledge that it is part of a larger system; therefore, its efforts must coordinate with general education (Huefner, 1988; Idol et al., 1986).

The second group advocated for students with severe intellectual disabilities. This group had a greater interest in returning students to their neighborhood schools, rather than into general education classrooms. Fuchs and Fuchs (1994) claimed that the advocates for those students “appeared to measure integration success in terms of social acceptance, with a focus on socialization skills, attitude change, and positive peer relationships, where REI proponents' bottom line tended to index academic competence/success” (p. 296).

Other special educators believed that as general educators had no stake in REI, they were unconcerned regarding its implementation. In 1991, Algozinne, Yssledyke, Kauffman, and

Landrum argued, “It is important to realize that today's movement for school reform has largely been a general education movement” (p. 6). Lieberman (1985, para. 4) stated that general education was “like the uninvited bride at special education's wedding” meaning that general education had no interest in serving students with special needs.

**Standards-based general education reform.** Even as the discussion concerning REI continued, general education was involved in its own reform that stressed higher standards and high stakes testing. Nolet and McLaughlin (2000) described standards as general statements of what students should know or be able to do. States and school districts have established standards and implemented high-stakes testing and require students with disabilities to participate in this testing along with their general education peers (Glickman, 2001). The increased pressure on schools to improve test scores and teach higher-order thinking skills may lead to a more inflexible curriculum, posing a problem for students with mild disabilities (Mamlin, 1999; Ratcliffe & Wilard, 2006). Cecil Picard (1998), former Louisiana superintendent of education, avowed that the

Increasing complexity of work that spans the entire work force of today's society demands that education for all students be made more relevant and useful to future careers therefore, as of July 1, 1998 there is only one curriculum for students in Louisiana. (p. 1)

Prior to this edict, special education students addressing the general curriculum in Louisiana could take Business Math and General Math to fulfill their math requirement, but since 1998 students are required to take Algebra I, part 1 and Algebra I, part 2 or Algebra I and Algebra II. An unintended consequence of this decree is that these classes are considerably more difficult for many students with special needs, and are also less likely to contain needed life skills, such as

keeping a budget or a checkbook. According to Hargreaves (2003), “schools and teachers have been squeezed into the tunnel vision of test scores, achievement targets, and league tables of accountability” (p. 1).

The publication of *A Nation at Risk: The Imperative for Educational Reform* in 1983 led to school reforms that are ongoing. Further, Goals 2000 enacted by President George H. W. Bush in 1991 set six national education goals that were to be met by the year 2000:

1. To ensure that every child starts school ready to learn;
2. To increase the high school graduation rate to 90%;
3. To ensure that every student completing the 4th, 8<sup>th</sup>, and 12th grades; demonstrates competence in core subjects;
4. To ensure that United States students will be first in the world in science and math achievement;
5. To ensure that every adult is literate and has the skills necessary to compete in a global economy and fulfill the duties of citizenship;
6. To free American schools from drugs and violence (Yell, 1992).

**The Americans With Disabilities Act (ADA) of 1990.** The Americans With Disabilities Act (ADA) of 1990 (P.L. 101-336) was enacted to extend civil rights protection to individuals with disabilities. It guaranteed equal opportunities in employment, public accommodation, transportation, state and local government services, and telecommunications. The ADA required that public buildings include accommodations for people with disabilities. At first, these modifications were added to existing structures; however, as new buildings were constructed architects began to see the desirability of including accommodations in the initial design stages. This led to the concept of universal design (UD) in architecture, a concept that spread to other

areas of design, eventually reaching education. Federal law still dictates that special education students must be educated in the LRE, (OSEP, 1994). The 1990 Individuals With Disabilities Education Act (IDEA) Regulations required that all students, regardless of their abilities, be given opportunities to become involved with and progress in the general education curriculum. IDEA did not require that every student be educated in a general education classroom but did express “strong preference for general class placement.” Thus a flexible curriculum that was responsive to the needs of diverse learners was needed. Universal design for learning (UDL) is one method of providing such a curriculum.

**The Assistive Technology Act of 1998.** The Assistive Technology Act of 1998 (P.L. 105-394) primarily funds state programs that provide assistive technology (AT) devices and services to individuals with disabilities. It also encourages the use of AT devices and services that benefit children and school systems by including students with disabilities in AT transition assistance programs at the state level and increases AT training for teachers. Lipsky (1994) referred to Section 412(5) (B) of IDEA, which he believes allows the removal of a child from the general education class only when the school district can prove that the child cannot be satisfactorily educated with supplemental aids and services. The ATA includes universal design principles that are usable by people with the widest range of functional capabilities.

**No Child Left Behind Act (NCLB) 2002.** The Elementary and Secondary Education Act of 1960 (ESEA) was reauthorized as the (NCLB, 2002) and affects virtually every aspect of education in the United States. The premise of NCLB is that all children will be proficient in reading and math and ensures that all children in America’s schools will learn to speak English. NCLB emphasizes four key principles: (a) stronger accountability for results, including “highly qualified” teachers; (b) greater flexibility for states, school districts and schools in the use of

federal funds; (c) more choices for parents of children from disadvantaged backgrounds; and (d) an emphasis on teaching methods that have been demonstrated to work. As such, NCLB promotes standards-based education and enhancement of the ability of our nation's teachers. The act is controversial, especially concerning teacher quality and accountability, or adequate yearly progress (AYP), a measure for determining if a local education agency (LEA) or school is progressing at an acceptable rate toward the goal of having 100% of its students achieve state academic standards. NCLB requires that special education students participate in large-scale assessments aligned to the general education curriculum, used to measure AYP (King-Sears, 2008). Diane Ravitch, assistant secretary of education at the time NCLB was passed, declares that she has changed her mind about school reform. Under NCLB, each state defined proficiency, and although many states reported “impressive gains” on in-state testing, these results were contradicted by the National Assessment of Educational Progress (NEAP). Neither has the promise of charter schools been fulfilled, as they enrolled smaller proportions of minority and non-English speaking students, as well as limited numbers of students with special needs, than public schools. These enrollment practices caused unfair comparisons with public schools, who take all students.

Ravitch (2010) claimed that NCLB and Race to the Top will cause more and more schools to be unfairly stigmatized as failing, because of their inability to reach an unrealistic goal. Either from ambition or ignorance (or both), NCLB dictated that students in every school would be proficient in reading and math by 2014, a goal never achieved by any state or nation. As students fail to achieve competency in reading or math, failing schools will suffer harsh penalties and be compelled to close, fire all or part of their faculty, including the principal, and be taken over by the state or a private management organization or to restructure.

Schools whose students fail to meet the NCLB standards will fall into one of several categories:

- Turnaround Schools-in this intervention model, the principal and at least 50% of the faculty must be replaced
- Transformation-the principal is replaced and steps taken to increase teacher and school leader effectiveness, institute comprehensive instructional reforms, increase learning time and create community-oriented schools
- Restart- convert a school to a charter school
- Closure-close a school and send students to higher-achieving school.

Although the NCLB expired in 2007 and has not been reauthorized, it has become a hot political issue. Only 35 of the 50 states chose to compete for the most recent RTT grants. Governor Rick Perry (Republican; Texas) refused to participate in the RTT federal grant program; neither is Texas taking part in the Common Core State Standards Initiative. On August 15, 2011 at an Iowa presidential campaign stop, Perry stated that “he doesn’t think the federal government has a role in education”. Louisiana Governor Bobby Jindal (Republican) also opted not to apply for the RTT early-learning competition. Speaking for the governor, Kyle Plotkin said that a number of state agencies, including the Department of Children and Families, studied the grant and determined it was “the exact opposite approach our state should take to help our kids...the grant would only make things worse by reducing flexibility and adding more micromanagement and regulatory obstacles”. Plotkin stated, “We want less red tape, not more” (State EdWatch, October 21, 2011).

Neither party wants to give the other party credit for the reform of the bill, although it has shown little effect on the actual education of American students. Scores have not risen dramatically and “when evaluated on relevant low-stakes tests, which are less likely to be

inflated by the incentives themselves, the overall effects on achievement tend to be small and are effectively zero for a number of programs” (National Research Council of the National Academies, 2010). Recent cheating scandals and claims of teachers teaching to the test have caused the American Federation of Teachers to call for reform of the law. “Teachers cannot be blamed for teaching to the test when as much as 50% of their pay may be dictated by the test results. End it, don’t mend it!” (V. H. Williamson, personal communication, May 3, 2011).

By 2008, NCLB determined that 35 % of the nations’ schools were “failing”. These schools faced draconian penalties. In an editorial in the Wall Street Journal (March 9, 2010) “*Why I Changed My Mind About School Reform*”, Ravitch stated, “Given the weight of studies, evaluations and federal test data, I concluded that deregulation and privately managed charter schools were not the answer to the deep- seated problems of American education”. Ravitch cited “states dumbing down their standards so they could claim to be making progress” and a study carried out by Stanford economist Margaret Raymond and funded by pro-charter foundations. Her group found that compared to regular public schools 17% got higher test scores, 46% had gains that were no different than their public school counterparts and 37 % were significantly worse. Charter evaluations frequently note low enrollments of students with limited English and students with disabilities. The higher graduation rate posted by charter schools often reflects that they “counsel out” their lowest performing students and in some cases 50 to 60 % of those who start at a charter school leave the system. NEAP comparison of public and charter schools in 2003, 2005, 2007 and 2009 found no significant performance difference between charters and regular public schools (2010a, para. 8-13).

Ravitch (2010b) concluded

The legacy of NCLB is this: State accountability systems that produce inflated scores;



widespread cheating to meet annual targets; a curriculum with less time for history, science and the arts; teaching to the test, and meager academic gains on the (NEAP), as well as a widespread perception that public schools have failed. (p. 5)

She contended that empirical evidence shows clearly that choice, competition and accountability as education reform levers are not working.

**The Individuals With Disabilities Education Act Reauthorization of 2004 (IDEIA 2004).** The Individuals With Disabilities Education Act Reauthorization of 2004 (IDEIA 2004) introduced UD as

a concept or philosophy for designing and delivering products and services that are usable by people with the widest possible range of functional capabilities and include products and services that are directly usable (without requiring assistive technologies) and products and services that are made usable with assistive technologies. (29 U. S. C. 3002)

IDEIA emphasized the removal of special education students from the general education classroom only when education there cannot be achieved even with the use of supplementary aids and services. IDEIA also includes measures to decrease paperwork, lessen the misidentification of students from diverse cultures, and allow more discipline of special education students, provided that their behavior is not related to their disability (Title I/B /612/a/5/ (A).

**American Recovery and Reinvestment Act of 2009 (ARRA).** Congress passed the American Recovery and Reinvestment Act (ARRA) on February 13, 2009 as a direct response to the economic crisis that existed in the United States at the time. President Barak Obama signed it into law four days later. ARRA has three immediate goals: (a) to create new jobs and save

existing ones; (b) to spur economic activity and invest in long-term growth; and (c) to foster unprecedented levels of accountability and transparency in government spending. In order to achieve those goals, ARRA will provide \$288 billion in tax cuts and benefits for millions of working families and businesses. Federal funds for education and health care as well as entitlement program will be increased by \$224 billion, and \$275 billion will be made available for federal contracts, grants and loans. Recipients of Recovery funds will be required to report quarterly on how they are using the money. The Recovery Act will also assist in the development of the infrastructure by offering financial aid directly to local school districts, expanding the child tax credit, and by paying for the computerization of all medical records. These projects were expected to jump-start the economy as well as contribute to the continued economic development of the country.

**Race to the Top (Part of ARRA 2009).** Race to the Top (also called R2T, RTTT, or RTT) is a \$4.35 billion program designed to push reforms in state and local K-12 education. Promoted by the United States Department of Education, it is funded by ARRA and was announced by President Barack Obama and Secretary of Education Arne Duncan on July 24, 2009. States were encouraged to apply for grants and loans that would improve the quality of education at the state and local level. A complicated scoring system was used to rate each state's application. Each state was scored based on a total of 500 points. Four states (Alaska, North Dakota, Texas, and Vermont) did not submit RTT applications. Governor Robert McDonnell withdrew Virginia from the second round of RTT because he believed that "the RTT rules precluded participating states from adopting more rigorous standards in addition to whatever multi-state standards they join". Further, Governor Rick Perry of Texas refused to enter the competition, stating, "We would be foolish and irresponsible to place our children's future in the

hands of unelected bureaucrats and special interest groups thousands of miles away in Washington" (RTT Executive Summary). Ravitch (2010a, para. 2) claimed that RTT is "more punitive than NCLB ... leaving the worst aspects of NCLB intact," including the heavy reliance on standardized test scores to evaluate schools and teachers. Two additional major sources of criticism for RTT have come from teachers' unions and those opposed to what they see as interference from the federal government.

## **Judicial**

Early legislation and court cases pertaining to the education of people with disabilities usually removed people with disabilities from general education facilities and prohibited or restricted their interaction with people in the general population (Yell, 2006). However, as legislation increased the opportunities of people with disabilities to participate in all aspects of society, several court cases reinforced the rights of Americans with disabilities to live as normally as possible.

**Brown v. Board of Education (1954).** *Brown v. the Board of Education* (347 US 483) in established that "separate but equal" was not acceptable in public education. By this landmark decision in 1954, the Supreme Court of the United States held that education, where the state has taken to provide it, is a right that must be available to all on equal terms resulting in the integration by race of all American public schools. Prior to *Brown v. Board of Education* racial segregation was the policy of schools throughout the United States, and mandatory or permissive segregation was the law in 21 states.

This continued to be a reality into the late 1960s and early 1970s. Although all the schools in a given district were supposed to be equal, most black schools were far inferior to their white counterparts. As a teacher involved in the early integration of schools in

Louisiana, I personally saw the difference in textbooks, materials and facilities provided to children in the “black” schools. The textbooks were usually “handed down” when white schools received new materials, and the physical plants were not nearly as modern or as nice as those of the white schools. I was one of a few white teachers who integrated faculties at schools in Terrebonne parish. (V. H, Williamson, M. Ed., personal communication, 2009)

In Topeka, Kansas, a black third-grader named Linda Brown had to walk one mile through a railroad switchyard to get to her black elementary school, even though a white elementary school was only seven blocks away. When her father attempted to enroll her in the white elementary school, the principal refused. Brown approached the NAACP for help. With Brown's complaint, the NAACP had the right plaintiff at the right time. Other black parents joined Brown, and, in 1951, the NAACP requested an injunction that would forbid the segregation of Topeka's public schools.

The U.S. District Court for the District of Kansas heard Brown's case from June 25-26, 1951. One of the expert witnesses, Dr. Hugh W. Speer testified that denying colored children the experience of associating with white children in school, greatly limited the colored child's curriculum and therefore, no school system could be equal under segregation. The Board of Education's defense was that segregated schools simply prepared black children for segregation during adulthood and cited many African Americans who had overcome segregated schools to achieve greatness. Frederick Douglass, Booker T. Washington and George Washington Carver were among those listed.

While the judges agreed with the expert witnesses; in their decision, they wrote: “Segregation of white and colored children in public schools has a detrimental effect upon the

colored children ... A sense of inferiority affects the motivation of a child to learn". However, *Plessy v. Ferguson* allowed separate but equal school systems for blacks and whites. Because of the precedent of *Plessy*, the court ruled in favor of the Board of Education (347 US 483).

Brown and the NAACP appealed to the Supreme Court on October 1, 1951, and their case was combined with other cases that challenged school segregation in South Carolina, Virginia, and Delaware. The Supreme Court first heard the case on December 9, 1952, but failed to reach a decision. In the re-argument, heard from December 7-8, 1953, the Court requested that both sides discuss the circumstances surrounding the adoption of the Fourteenth Amendment in 1868. The re-argument shed very little additional light on the issue. The Court had to make its decision based not on whether or not the authors of the Fourteenth Amendment had desegregated schools in mind when they wrote the amendment in 1868, but based on whether or not desegregated schools deprived black children of equal protection of the law when the case was decided, in 1954. On May 17, 1954, Chief Justice Earl Warren read the decision of the unanimous Court:

We come then to the question presented: Does segregation of children in public schools solely on the basis of race, even though the physical facilities and other "tangible" factors may be equal, deprive the children of the minority group of equal educational opportunities? We believe that it does ...We conclude that in the field of public education the doctrine of 'separate but equal' has no place. Separate educational facilities are inherently unequal. Therefore, we hold that the plaintiffs and others similarly situated for whom the actions have been brought are, by reason of the segregation complained of, deprived of the equal protection of the laws guaranteed by the Fourteenth Amendment. (347 US 483, p. 493)

Thus, the decision of the Supreme Court in *Brown v. Board of Education* struck down the "separate but equal" doctrine of *Plessy* for public education, ruled in favor of the plaintiffs, and required the desegregation of schools across America. The decision of the Supreme Court ended mandatory or permissive segregation of schools, although it did not abolish segregation in other public areas, such as restaurants and restrooms, nor did it require desegregation of public schools by a specific time.

Not only did *Brown v. Board of Education* (1954) have sweeping implications for African-Americans, but the precedent opened the door of opportunity for all individuals with unalterable characteristics to receive the full protections of the Fourteenth Amendment, especially in the area of education. (Yell, 2009, pp.16-18)

**Pennsylvania Association for Retarded Citizens.** *Pennsylvania Association for Retarded Citizens v. Pennsylvania* (1971). Following *Brown*, cases such as *Pennsylvania Association for Retarded Citizens (PARC) v. Pennsylvania* (1971) led federal appeals courts to establish the following principles: All children benefit from education; all children are entitled to free public education and training appropriate to their needs; and all children are entitled to as normal a placement as possible (Yell, 2006).

**Board of Education v. Rowley (1982).** *Board of Education v. Rowley* (1982), in an opinion, the United States Supreme Court determined that IDEA does not grant courts a license to substitute their own notions of sound educational policy for those of the local school authorities or to disregard the findings developed in state administrative hearings (Yell, 1999; Yell, 2006). *Rowley* established the principle that public schools are required by law to provide a free appropriate public education (FAPE) to all students. Additionally, a series of federal court decisions have further defined the LRE clause and have developed tests for determining whether

a particular setting meets acceptable standards. Federal appellate court cases involving LRE resulted in several acknowledged tests for determining LRE placement.

*Roncker v. Walter (1983), also known as the Roncker Portability Test.* *Roncker v. Walter*, 700 F. 2d 1058 (6th Circuit, 1983) was the first LRE case, and a precursor of the more recent “inclusion” cases. Neill Roncker was a 9-year-old child classified as having moderate mental retardation. The school district wanted to place him in a special school for children with disabilities. Parents and educators agreed that Neill needed special education, but the parents wanted him placed in a general education classroom where he would have interaction with nondisabled peers. The lower court ruled in favor of the school district, but the Sixth Circuit Court representing Kentucky, Tennessee, Michigan, and Ohio found that while the act does not require mainstreaming in every case, its requirement that mainstreaming be provided to the maximum extent appropriate indicates a strong congressional preference and reversed the decision of the lower court (P.L. 94-142, p. 1063).

The Court further stated:

Where the segregated facility is considered superior, the court should determine whether the services that make that placement superior could be provided in a non-segregated setting. If services can be provided in a non-segregated school, then placement in the segregated school would be inappropriate under the Act.  
(P. L. 94-142, p. 1064)

This became known as the *Roncker Portability Test* (Lipton, 1994; Yell & Drasgow, 1999; Yell, 2006). Despite this pro-general education class ruling, the federal courts in the 1980s did not fully support the concept of LRE as primarily being the general education classroom.

**Daniel R. R. v. State Board of Education, El Paso Independent School District.** Later called the Daniel R.R. Two-Pronged Test, *Daniel R. R. v. State Board of Education, El Paso Independent School District* (874 F. 2d 1036 (5th Cir. 1989)), requires school districts to determine first, if the student will benefit from mainstreaming academically or non-academically (e.g., socially) and then, whether his/her overall educational experience will be positive or negative. In other words, the school must balance the benefits of the general education setting against the benefits of the special education setting in making its decision. The Court ruled that, “Mainstreaming a child who will suffer from the experience would violate the mandate demanded by P.L. 94-142 for a free and appropriate education” (874 F. 2d 1036 (5th Cir. 1989)). The school must also examine the effect of the student with disabilities on the education of the other students, paying attention to disruptive behavior and the “instructional burden” placed on the teacher. The Two-Pronged Test asks (a) whether education, in the general classroom with the use of supplementary aids and services, can be satisfactorily achieved for a given child; (b) if it cannot, and the school intends to remove the child from general education, whether the school has mainstreamed the child to the maximum extent appropriate (Yell, 2006, p. 318).

According to the courts, school districts are not obligated to ‘provide inclusive settings in every instance nor to provide every conceivable supplemental aid or service to make education in the general classroom possible’ (Yell, 2006, pp. 3-7). Furthermore, teachers are not required to spend all or most of their time with the child with disabilities, nor to modify the curriculum to the extent that it becomes a new curriculum (Lipton, 1994; Yell & Drasgow, 1999; Yell, 2006).

**Sacramento School District v. Holland.** In *Sacramento City Unified School District v. Rachel Holland* (14F.3d 1398, 1994), the Ninth Circuit Court of Appeals, relying heavily on the Daniel R. R. Two-Pronged Test for its decision, created an LRE test in which four factors are to



be considered when weighing the educational benefits of the general education classroom (with supplementary aids and services) against the educational benefits of the special classroom:

- the special education classroom is at least equal to or superior to the general education classroom with supplementary aids and services;
- the non-academic benefits from integration with students who are not disabled;
- the effect of the student's presence on the educational environment and on other children in the classroom;
- the cost of including the student in the general classroom.

Here again the court found that the cost of including a child in a general education class must be so great as to affect the education of other children in the district in order to be considered (Lipton, 1994; Yell, 2006).

**Greer v. Rome City School District.** The court adopted the Daniel R. R. Two-Pronged Test to determine compliance in *Greer v. Rome City School District*, 950, F. 2d 688 (11th Circuit, 1991), stipulating that a school must consider whether supplemental aids and services would permit satisfactory education in the general classroom, bearing in mind the whole range of supplemental aids and services, including resource rooms and itinerant instruction, for which it is obligated. The court agreed that the school district may consider what effect the presence of the “handicapped child” in a general classroom would have on the education of other children in that classroom when considering supplemental aids and services that could accommodate a child's need for additional attention. However, the court stated that even if the cost of appropriate aids and services would be incrementally more expensive than educating the child in a self-contained special education classroom a school may have to place the child in a general education class, unless the cost of educating the disabled child in a general class is so great that it would

significantly impact on the education of other children in the district, then education in a general classroom is not appropriate (Lipton, 1994; Yell, 2006).

**Oberti v. Board of Education of the Borough of Clementon School District.** The federal district court in New Jersey in *Oberti v. Board of Education of the Borough of Clementon School District* 99 F. 2d 1204, 3rd Circuit (1992), ruled “school districts have an affirmative obligation to consider placing students with disabilities in general education classes with the use of supplementary aids and services before they consider other options” (Osborne & Dimattia, 1994, pp. 6-14). The court also declared that school districts can only rebut the preference for general class placement by demonstrating that a student's disabilities are so severe that he or she will derive little or no benefit from inclusion, or that he or she will disrupt the education of other children, or that the cost of providing supplemental aids and services will negatively impact the education of other children.

The Third Circuit Court of Appeals supported the district court’s decision in *Oberti*, stating that the right to associate with peers without disabilities is a fundamental value of the right to public education; therefore learning differently from one's peers is no reason to exclude one from a general education classroom. Thus, the student's disruptive behavior alone was not a sufficient excuse for removing the child from a general education class, because the school district had failed to make a good faith effort to provide aids and services that may have curbed any disruptions (Osborne & Dimattia, 1994; Yell, 2006).

**Gaskin et al. v. Commonwealth of Pennsylvania.** *Gaskin et al. v. Commonwealth of Pennsylvania* (231 F. R. D. 195, 2005 U.S. Dist. Lexus 20413, E.D. PA (2005)) emphasized that removal from a general education setting can only occur “if the nature or severity of the

disability is such that education in a regular education classes with the use of supplementary aids and services cannot be achieved satisfactorily (Yell, 2006).

**Pace v. Bogalusa City School Board.** In *Pace v. Bogalusa City School Board* 325 F: 3d 609 (2003), the Fifth Circuit Court of Appeals stated that an IEP need not be the best possible one, nor one that will maximize the child's educational potential; rather, it need only be an education that is designed specifically to meet the child's unique needs, supported by services that will permit him to benefit from instruction (Yell, 2006).

**Summary of court cases.** The courts in these cases repeatedly found that the law does not require a student to perform at grade level in order to be included in the general education classroom (Lipton, 1994) and looked to the IEP for evidence of FAPE. Emphatically, the courts ruled that general education placement is not a privilege but a right, and the onus is on school districts to prove that a student cannot benefit from education or that a student will disrupt the education of others, either behaviorally or financially, even if provided with the necessary supplemental aids and services (Osborne & Dimattia, 1994; Yell, 2006). These laws and tests indicate a strong preference by the legislature, courts, and OSEP for all students to address the general education curriculum.

Several potential problems may impede inclusive education in general. One barrier is the need for basic literacy in the areas of reading, writing, science, and computation. This creates rigorous demands for students, and is especially true in secondary education, where there is less frequent contact between the student and the special education teacher (Michael & Trezek, 2006). Brown, Gable, Hendrickson, and Algozzine (1991) found that the higher the grade level, the less likely teachers are to make modification or changes to curriculum. In the absence of effective adaptations and modifications, Greenwood (1998) insisted that it may not be

appropriate or possible to serve some students with learning disabilities in the general education classroom.

### **Teacher Attitudes Toward Making Accommodations and Modifications to the General Curriculum for the Student With Special Needs**

**Accessing the general curriculum.** Nolet and McLaughlin (2000,) asked for a new model of special education “in which a set of services or supports provides a student access to the general education curriculum” (p. 10). Although every student must have access, providing the same materials to each student will not ensure it. Lee, Wehmeyer, Soukup, and Palmer (2010) found that standards-based activities without curriculum modifications did not necessarily result in better academic performance; however, students with disabilities engaged in curricular activities linked to standards but with curriculum modifications were less likely to engage in off-task behavior. These authors also noted that the presence of curriculum modifications resulted in fewer “management behaviors” (p. 229) by teachers.

**Accommodations and modifications.** Accommodations and modifications added after the curriculum is designed can be cumbersome, expensive, time consuming to develop, and difficult to implement in classrooms of diverse learners. Greenwood (1998) identified several major themes that concern the effectiveness of the general education curriculum to meet the needs of students with disabilities in the mainstream. These themes include the ability of general education teachers to

- identify problems with commercial curriculum materials;
- suggest potential remedies;
- provide effective instruction to the majority of students with learning disabilities. (p.79)

More inclusive classrooms require strategies for providing access to the general education curriculum in order for students with disabilities to be actively involved and progress within the general education curriculum. Bricker (1995) described three factors that influence teachers' practice of inclusion: attitudes (e.g., attitudes about inclusion); resources (e.g., access to specialists, collaborative planning); and curricula (e.g., activity-based; promoting interaction). "There are several strategies that educators can employ to give these students access, including using a curriculum that has been universally designed for accessibility" (p. 182).

Inadequate background knowledge and the complexity of concepts or language can raise barriers for many students, especially in social studies or science. Assessment of these problems is necessary before a solution can be presented. Although presentation methods such as text, audio, and graphics may all assist some students, any method that facilitates learning for some students may create barriers for others. Due to its fixed nature, printed text presents barriers to many students, including those with learning disabilities and blindness. Digital or computerized text is an alternative that allows students to change the shape, size, color of text, and even transform print into speech. However, as an alternative to printed text audio creates barriers for students who are deaf or are in a noisy environment or those who have difficulty understanding a spoken language. Captioning in digital text is a redundancy that reduces audio barriers. Verbal descriptions of graphics allow access by students with vision impairments and provide flexibility for instruction and direction (Richardson & Beard, 2008).

Providing summaries of key concepts, "Big Ideas" and creating activities that build prior knowledge are optional supports that should be included in all curricula. Usability of a curriculum for students can be increased by providing flexible means of expression, flexible alternatives, and built-in redundancy. When physical impairments may prevent students from

writing, holding textbooks, or maneuvering in the classroom, using on-screen scanning keyboards, enlarged keyboards, word prediction software, and spell checkers can facilitate writing and using a textbook, while attention to furniture arrangement and the location of materials may help students function independently. In addition, many teachers lack procedural knowledge for correcting poor instructional design. Gravois, Rosenfield and Vail (1999) found that, “Instruction stands out as the critical component of effective services for low achieving students and students with disabilities” (p.148). Many studies indicated that general education teachers tend to favor whole-group instruction and seldom attempt to make adaptations for individual students. This was reported by Baker and Zigmond in 1995 and in a more recent study, Zigmond and colleagues (2009) found that little has changed. In addition, some studies suggest that general education teachers believe that they lack the knowledge, time and skills to make curricular adaptations.

Mather and Roberts (1997) emphasized that, “When provided with appropriate support, many individuals with LD are able to succeed in regular education classrooms...Students with more severe LD continue to need intensive remediation in pull-out programs” (p. 53). The right to receive appropriate instruction is equally important as the right to participate in general education. In order to accommodate students' individual needs and to give them the opportunity to progress in content areas, educators traditionally have adapted or modified the curriculum. Materials must be cognitively challenging yet appropriate to encourage active participation in learning, thus meeting each student's needs.

Lee et al. (2010) described two types of curriculum modifications, curricular adaptations and curriculum augmentation. Curricular modifications do not change the curriculum but change students' methods of access to it. Curriculum augmentations, on the other hand, expand the

curriculum, often through the teaching of learning strategies; again not changing the curriculum, but adding to it. According to Gunter, Denny, and Venn (2000), there are nine types of instructional materials adaptations:

Size - changing the number of items a student is expected to complete in a given time period;

Time - there are two aspects of time modifications

- extending the time required to complete tasks
- changing the pace of instruction;

Level of support - kinds of support include

- social/personal supports that provide assistance in interacting with others
- material supports that help students access the general curriculum, for example, providing guided notes or graphic organizers
- physical supports that help clarify the relationship between a behavior and its consequences;

Input modifications - adaptations in the way instruction is delivered to the learner

Output modifications - change the way the learner responds to instruction

- Difficulty - degree of expertise required
- Participation - degree of student involvement
- Alternative curricular goals - varied instructional content
- Substitute curriculum - acceptable variations of content

**Curriculum design.** Designing a curriculum for the divergent needs of special populations increases its usability for everyone. Universal design for learning (UDL) is defined by Nolet and McLaughlin (2000) as

Products and environments should be usable by the largest number of people without the need for additional modifications beyond those incorporated in the original design.

When additional adaptations are needed they should be easily and unobtrusively accommodated by the original design. (p. 89)

In universally designed environments, adaptability is subtle and integrated into the design. UDL emerged from universal design in architecture. Cawley foreshadowed the ideas incorporated in universal design with the interactive unit (IU). The IU developed by Cawley in the 1970s “as a means of exchanging mathematics skills and concepts, allowed for parceling out the effect of a disability in one area upon performance in another” (Cawley, 1985 p. 223) is identified as a system of 16 combinations of interactions between students, teachers, and materials.

Specifically, the IU offers teachers four means of “input to teach concepts: manipulate, display, say, and write; and students, four categories of response: write, say, identify, and manipulate” (Cawley, 1985, p. 224). Using the IU, teachers and students can use varied methods of communication and representations of mathematical meanings and procedures to interpret meanings and apply skills, lessening the impact of a disability on another area (Cawley, 1996). The IU incorporates the principles of universal design by using the following as a new paradigm for teaching, learning, assessment, and curriculum development,

- systematically varying input and output
- decreasing the impact of a disability such as reading on another area, such as science or math content
- providing a framework for variations in materials and instruction. Using experiments and other activities to allow multiple means of engagement (Cawley et al., 2003).



**Pre-service and in-service training.** Since the early 1960s, there has been significant controversy on the placement of special education students. Placement has gone from no special education classes at all to self-contained classes limited by exceptionality and age, and back again to placement in the general education classroom. Extensive research exists on the concept and ramifications of placing students with special needs in general education classrooms. This research indicates that successful integration of the student with special needs into the general education classroom is possible if the general education teacher receives adequate training and appropriate support with both materials and personnel. The ramifications of placing students with special needs into the general education classroom without adequate training and support for the general education teacher is far less successful (Gilbertson, Witt, & Singletary, 2007; Idol, 2006; Schumm, Vaughn, Hager, & Klingner, 1994)

Education policies continue to increase the number of special education students addressing the general education curriculum in general education classrooms with their same-aged peers. There is consensus that teachers' attitudes are one of the most important indicators for the successful inclusion of these students. This creates implications for teacher training at the pre- and in-service levels (Avramidis & Kalyva, 2007; Kosko & Wilkins, 2009; Sze, 2009), as mentioned below.

In several studies of teacher attitudes towards their abilities to teach students with disabilities in the general education classroom, results indicated that many teachers lack confidence both in their own instructional skills and in the quality of support personnel available to them (Center & Ward, 1997; Hoover & Sakofs, 1995). Larrivee and Cook (1999), in a survey of 1,000 public school teachers, found that "teachers' perceptions of degree of success in dealing with students with special needs had the most significant relationship to teachers' attitudes

towards mainstreaming” (pp. 321). As a result of these findings, pre-service training should include efforts to improve teacher confidence, and both pre-service training and professional development or in-service training should take into consideration teachers’ attitudes toward inclusion of students with special needs in the general education classroom, as well as provide concrete suggestions, lists of resources available to teachers and lesson plans that can be used to assist in dealing with students with special needs in the general education classroom.

A recent study by Brown, Welsh, Hill, and Cipko (2009) on the efficacy of embedding special education instruction in teacher preparation programs in the United States found that teachers’ levels of confidence were significantly raised when they were instructed in specific techniques addressing inclusion in the classroom. By embedding special education instruction in the general education curriculum of teacher training institutes, all teachers will become better able to accommodate the learner with special needs in the general education classroom (pp. 2088-2089).

**Standards-based teaching.** Tomlinson (2000) suggested that there is a dichotomy between standards-based teaching and differentiation necessary to include special education students in general education classrooms. Specifically, she questioned the impact of standards-based education on the quality of teaching and learning for general education students, using that as a baseline for assessing the impact on students whose abilities are outside the usual norms of achievement. According to Tomlinson, if standards are not the curriculum, but are reflected in a curriculum that incorporates the skills valued most by experts in various disciplines, state standards and testing become only one part of a creative curriculum that allows many visions of learning and success.

Further, asserting that the standards movement has adopted a definition of the well-educated citizen as a college graduate who is technologically prepared to lead a successful economic life Glickman (2001) saw few challenges to the idea that there is only one version (the state's) of what constitutes a well-educated person. He conceded that some good has come from the standards movement, specifically:

- increased expectations for all students, regardless of socioeconomic class, gender, race, ethnicity, or disability;
- increased and more equitable funding of education, including extra funding aimed at schools that score poorly; closing or restructuring of low scoring schools.

Because there are no standards for state standards, McDonnell, McLaughlin, and Morison (1997) warned that the standards, assessment, and accountability movement is locking teachers into an inflexible curriculum focused on testing.

Much of the current literature on the inclusion of students with special needs indicates that teachers are willing to make accommodations but feel unprepared to develop lesson plans that modify the curriculum for inclusion of students with special needs. Research also indicates that general education teachers prefer accommodations over modifications. Brown et al. (2008) pointed to deficits in teacher training in the area of modification as evidenced by general education teachers expressed concerns that modifications may violate standards.

Teacher collaboration is more important than ever in today's classrooms and is defined broadly as "a style of direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal" (Lingo, Barton-Arwood, & Jolivet, 2011, p. 6). There are multiple methods of teacher collaboration, including but not limited to co-teaching, peer coaching, consultation, and shared problem-solving (Friend &

Cook, 1997; Cook et al., 2000; Pindiprolu, Peterson, & Bergloff, 2007; Kosko & Wilkins, 2009).

In order for inclusion to work, the curriculum must be intentionally designed, specific strategies must be discussed by both the general education and the special education teacher, and there must be adequate support by the special education teacher for the learner with special needs in the general education classroom (Dukes & Lamar-Dukes, 2009). More specifically, Sindelar, Shearer, Yendol-Hoppey, and Liebert, (2006) asserted that special education teachers must expand their focus beyond individual student needs and general educators must focus beyond their academic content to create an inclusive climate. A collaborative effort by all teachers (general and special) as well as administrators is necessary to advance school reform that will allow the success of inclusion.

Whitehurst and Lonigan (2002) contended that the most viable indicators of successful inclusion of learners with special needs in the general education classroom are the attitude and expertise of both the general education and the special education teacher and their ability to collaborate in providing adaptations and accommodations for the individual learner. Similarly, according to Santoli and colleagues (2008), teachers' attitudes are crucial to successful integration of students with disabilities in the general education classroom.

The policies mentioned here also acknowledge that general education teachers need a repertoire of assessment procedures and strategies to be highly effective with students with disabilities (Kosko & Wilkins, 2009; Whitehurst & Lonigan, 2002). Although there is no single method by which to practice inclusive education, the underlying belief that all professionals are responsible for promoting the academic and social development of all students is key. The inclusive philosophy provides the who (students receiving services) and where (location) of

inclusive services. Inclusive education is the process by which educators provide appropriate supports and services to students with disabilities in the least restrictive environment; namely, the general education classroom (Idol, 2006).

Simmons, Kameeui, and Chard (1998) asserted that general education teachers believe that the major determinants of learning exist within a child. There is a clear difference in inclusive philosophy and inclusive practices. Although it is essential for teachers to understand the rules and regulations of federal legislation (i.e., IDEA, 2004), it is also critical that teachers understand the spirit of the legislation that serves as the basis for creating and maintaining inclusive practices, such as expanding the principle of LRE to include access to the general education curriculum (Artiles, Kozleski, Dorn, & Christensen, 2008; Blaise, et al. 1999). Artiles also cautioned that daily interaction and collaboration between general and special educators, bi-monthly meetings, weekly classroom visits, and workshop/in-service training are required to initiate, sustain, and expand effective inclusive classroom practices.

Over the past 30 years, there has been a dramatic increase in the number of special education students receiving the majority of their education in general education classrooms. However, outcomes for these students are not noticeably better, perhaps because teachers lack training and support to adapt the general education curriculum for these children.

## **Summary**

This chapter included a review of the literature describing the history of inclusion and adaptations to the general curriculum for students with disabilities in the general education classroom. As such, the study pointed to a need for more research into teachers' willingness to make and preparedness for making accommodations and modifications of the general education curriculum for students with disabilities who are included in general education classrooms.

## **Chapter 3**

### **Method**

This study examined the differences in attitudes between general and special education teachers towards accommodations and modifications of curricula for students with special needs who are included in their classrooms. The study also examined the differences between these educators' selected demographic and descriptive characteristics, which include teacher education, educational setting, and support for inclusion. Chapter 3 consists of (a) research questions, (b) selection of the participants, (c) description of the instrument, (d) data-collection procedures, (e) research design, (f) statistical analyses, and (g) summary.

The following research questions were studied using an anonymous 65-item Likert-type instrument, the Teacher Acceptability and Use Scale (TAUS), developed by Boulton (2003) and modified slightly for use in this study. Boulton developed the TAUS following a review of the literature on accommodations for students with disabilities. It was intended to provide a sampling of response items representing the most common adaptations of curriculum and instruction evidenced in the literature.

The TAUS originally consisted of 28 accommodations. Respondents were asked to rate each of the accommodations along two dimensions: acceptability of the accommodation and current or recent use (within the past two years). Acceptability was defined as "the degree to which the accommodation is in line with your teaching philosophy." Using a Likert-type scale, respondents were asked to rate each of the accommodations according to the following metric:

1 = unacceptable

2 = acceptable under rare conditions

3 = acceptable for students with disabilities

4 = acceptable for most students

5 = acceptable for all students

In addition, respondents were asked to indicate the frequency with which they used the accommodation, within the last two years, according to this metric:

1 = never used

2 = used less than once a month

3 = used when appropriate in instructional sequence

4 = used once a week

5 = used on a daily, or near daily, basis

The instrument yielded six subscale scores for acceptability and four subscale scores for reported use of the accommodations.

Based on review of the literature, research, and the results of a pilot study with 25 general and special education teachers who did not currently teach in the selected district, the 28-item, 5-point Likert-type scale (TAUS) measuring educators' perceptions of their knowledge, skills, and attitudes towards using accommodations and modifications of the curricula was modified slightly for use in the current study and to improve user experience with the online version of the survey.

For example, some language was updated (e.g., "graphic novels, e-books and audio books" were added to the examples under "provide alternative forms of textbooks"). Further, two modifications or accommodations were added to the list: (a) "allow students to use word processors with word prediction software for written assignments" and (b) allow students to use calculators or math facts sheets." In order to use an e-mail-based survey, the two metrics were presented separately instead of side-by-side. Additionally, the descriptors in the metrics were changed to better address the research questions of this study. Teachers were asked to indicate

their willingness (the degree to which the accommodation is in line with their teaching philosophy) to implement specific accommodations and modifications instead of acceptability.

Also, the descriptor “not applicable” was added. The modified metric was as follows:

0 = Not applicable

1 = Definitely not willing

2 = Probably not willing

3 = Don't know

4 = Probably willing

5 = Definitely willing

Teachers were asked to indicate their preparedness to implement specific accommodations and modifications instead of to report their actual use of a particular modification. This metric also included “not applicable” as one of the choices. The modified metric was:

0 = Not applicable;

1 = Definitely not prepared;

2 = Probably not prepared;

3 = Somewhat prepared;

4 = Mostly prepared;

5 = 100% prepared.

Included with the survey was a questionnaire used to collect demographic and descriptive information about the teachers, their students, the educational setting, and implementation of inclusion. The primary demographics fall under the following categories:

- Personal information (e.g., sex, ethnicity);



- Professional description (e.g., highest degrees, areas of certification, and number of years teaching);
- Other primary characteristics (e.g., class size, number and types of students with disabilities, and primary teaching responsibility).

## **Research Questions**

The study examined the following questions regarding the success of students with special needs in general education classes:

RQ 1: Are there significant differences between the attitudes of general education teachers and special education teachers toward providing the necessary accommodations and modifications of the curriculum?

RQ 1.1 Are there significant differences in attitude between new special education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.2: Are there significant differences in attitude between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.3: Are there significant differences in attitude between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.4: Are there significant differences in attitude between veteran general education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ2: Are there significant differences about the perception of preparedness between general education teachers and special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.1: Are there significant differences about the perception of preparedness between new special education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.2: Are there significant differences about the perception of preparedness between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.3: Are there significant differences about the perception of preparedness between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.4: Are there significant differences about the perception of preparedness between veteran general education teachers and veteran special education teachers toward making accommodations and modifications of the general education curriculum for students with special needs?

## **Participants**

**Target population.** The target population consisted of willing participants who were general and special education teachers in one suburban school district in the southeastern United States. The population was selected for the following reasons: the researcher had access to school personnel,

there was adequate documentation of student and teacher populations in the selected school district, and there was verification that the practice of inclusion has been implemented in the district.

Table 1 provides a summary of the teacher populations in the selected school district. Table 1

*Teacher Populations in the Participating School District*

Teachers 2010-2011 School Year	Elementary/Secondary
General education	288
Special education	43
Total degreed employees	504

Table 2 provides a summary of teachers' teaching experience in the district.

Table 2

*Teachers' Teaching Experience in the Participating School District*

Number of Years Employed by District	Number of Teachers
0-3 years	330
4-9 Years	70
10 +Years	117

The high percentage of teachers in this district with zero to three years' experience is partially the result of Hurricane Katrina in 2005. A large number of teachers retired or relocated following the storm. Furthermore, former district teachers reemployed after 2006 were rehired at zero years' seniority.

Table 3 provides a summary of the student population in the selected school district.

Table 3

*Student Population in the Participating School District*

Students	Elementary/Secondary
Total students	5,916
Students with special educational needs (ages 6-21 receiving special education - Federal IDEA child count, October 1, 2010)	612 (10.3%)

Table 4 provides a summary of the selected schools.

Table 4

*Schools in the Participating District*

School type	Number
Elementary (pre-k 3-5 <sup>th</sup> grade)	5
Middle (6 <sup>th</sup> -8 <sup>th</sup> grade)	3
9 <sup>th</sup> Grade Academy (9 <sup>th</sup> grade); separate campus within the high school	1
High School (10 <sup>th</sup> -12 <sup>th</sup> grades)	1
Alternative School (5 <sup>th</sup> -12 <sup>th</sup> grades)	1

**Accessible population.** The 10 schools in the participating school district included one high school serving students in 9<sup>th</sup> through 12<sup>th</sup> grade, three middle schools serving students in 6<sup>th</sup> through 8<sup>th</sup> grades, five elementary schools serving students therein 3<sup>rd</sup> through 5<sup>th</sup> grade, and one alternative school serving students in 5<sup>th</sup> through 12<sup>th</sup> grade. All schools serve general and special education students. Both general education teachers and special education teachers from all schools participated in the study.

**Description of the final sample.** The sample consisted of 192 teachers who completed the survey. The majority of the sample was female. The survey collected more specific demographic data from participants.

**Limitations of the Study**This study was limited to a comparison of groups of teachers in one suburban school district in the southeastern United States. It included general and special education teachers. The results are not generalizable to teachers from different districts.

**Delimitations of This Study**The sample included all general education teachers and all special education teachers in the participating school district. All potential participants were included in the sample, and each received an e-mail with a research packet that included an introductory letter, and the survey instrument, including demographic/descriptive questions. In order to participate, teachers completed the survey.

## **Instrument**

**Teacher Acceptability and Use Scale (TAUS).** The instrument used in this study was a modified version of the Teacher Acceptability and Use Scale (TAUS).

**The original instrument.** The TAUS, originally developed by Boulton (2003) following a review of the literature on accommodations for children with disabilities, provides a sampling of response items representing the most common adaptations of curriculum and instruction materials evidenced in the literature and was used in her dissertation study. The instrument consisted of 28 accommodations. Respondents were asked to rate each of the accommodations along two dimensions: acceptability of the accommodation and current or recent use of the accommodation (within the last two years). Acceptability was defined on the instrument as “the degree to which the accommodation is in line with your teaching philosophy.” Using a Likert-

type scale, respondents to the unmodified TAUS were asked to rate their acceptability of each of the accommodations according to the following metric:

- 1 = unacceptable;
- 2 = acceptable under rare conditions;
- 3 = acceptable for students with disabilities;
- 4 = acceptable for most students;
- 5 = acceptable for all students.

In addition, respondents were asked to indicate the frequency with which they had used the accommodation within the last two years, according to this metric:

- 1 = never used;
- 2 = used less than once a month;
- 3 = used when appropriate in instructional sequence  
(e.g., beginning or end of a unit or chapter);
- 4 = used once a week;
- 5 = used on a daily, or nearly daily, basis.

Boulton's (2003) sample consisted of 500 randomly selected teachers in the southeastern United States. Her response rate was 38%. Content validity was established by examination of the instrument by university personnel who specialized in special education and educational research. Following factor analysis, the reliability score for the TAUS was calculated, using Cronbach's alpha to determine the internal consistency of the data for each factored subscale. The Cronbach's alpha was calculated for each of the subscales as an estimate of the subscale's internal consistency. She found the estimates of reliability indicated a reasonably reliable instrument for use in measuring the acceptability and use of accommodations. After the factor

analyses and reliability estimates were completed, data analysis evaluated the relationship between variables explored in the study (Boulton).

**The modified TAUS.** The 28-item, 5-point Likert-type scale TAUS, which measures educators' perceptions of their knowledge, skills, and attitudes towards using accommodations and modifications of the curricula was modified slightly for use in the current study. Some language was updated (e.g., "graphic novels, e-books and audio books" were added to the examples for "provide alternative forms of textbooks." Two modifications or accommodations were added to the list (a) "allow students to use word processors with word prediction software for written assignments" and (b) "allow students to use calculators or math facts sheets." In order to use an e-mail-based survey, the two metrics were presented separately instead of side-by-side. Additionally, the descriptors in the metrics were changed to better address the research questions of this study. Teachers were asked to indicate their willingness (the degree to which the accommodation is in line with their teaching philosophy) to implement specific accommodations and modifications instead of acceptability. Also another descriptor was added "not applicable." The modified metric is:

0 = Not applicable

1 = Definitely not willing

2 = Probably not willing

3 = Don't know

4 = Probably willing

5 = Definitely willing

Teachers were asked to indicate their preparedness to implement specific accommodations and modifications instead of to report their actual use of a particular

modification. This metric also includes “not applicable” as one of the choices. The modified metric is

0 = Not applicable

1 = Definitely not prepared

2 = Probably not prepared;

3 = Somewhat prepared

4 = Mostly prepared

5 = 100% prepared

Included with the survey was a questionnaire used to collect demographic and descriptive information about the teachers, their students, the educational setting, and implementation of inclusion. The primary demographics fall under the following categories:

- Personal information (e.g., sex, ethnicity);
- Professional description (e.g., highest degrees, areas of certification, and number of years teaching);
- Other primary characteristics (e.g., class size, number and types of students with disabilities, and primary teaching responsibility).

Trial versions of the modified survey were completed by 25 teachers who did not teach in the selected school district. Their input was used to clarify and improve the modified TAUS and improve the user experience with the online version.

The research packet was delivered via e-mail and included the primary instrument, the demographic questionnaire, and a cover letter. In addition, paper versions were available at each school for participants who preferred to use a paper version rather than a web-based version.



## **Data-Collection Procedures**

This study employed an online anonymous survey sent to all teachers in the designated schools, including demographic characteristics. After permission was granted by the superintendent, a cover letter and a URL link to the survey was e-mailed to each teacher in the designated district. The cover letter expressed gratitude to the respondents, explained the purpose of the study, and provided instructions for completing the survey. It also assured the respondents that all responses were voluntary and anonymous, because the survey application shields the researcher from access to respondents' identity.

A time limit of 10 days was set for respondents to complete the survey. After one week all participants received a follow-up e-mail requesting anyone who had not yet completed the survey to do so. The reason the reminder was sent to all respondents, and not just the ones who had not responded, was that the deployed web-based medium did not track respondents. This approach was consistent with the goal of maintaining anonymity.

**Scoring procedures and interpretation of the data-collection procedures.** Because this was an anonymous survey, there was no way for the researcher to determine which teachers answered the online survey. Any survey that is mass distributed opens the possibility that someone may answer the survey more than once, even though the instructions specified that the survey was to be taken only once. Nonetheless, there is a very narrow possibility that a faculty member could answer the survey more than once. However, since there is no way to counter this prospect without sacrificing the anonymity, it is an acceptable limitation.

The online survey medium included a feature that obstructs the ability to "stuff the ballot box." The web server was able to recognize static Internet Protocol (IP) addresses; therefore, if a participant used the same computer and tried to log onto the survey a second time, that person

would have been directed to a page stating, “Thank you for taking the survey,” and the person could not retake the survey from that same computer. The survey engine’s ability to recognize IP addresses was very helpful, because it also allowed those who, perhaps, did not have time to complete the survey on a first attempt to return later and resume where they had left off. It is technically possible that static IP addresses of computers could indicate the location of a computer. For example, the FBI has the ability to trace an IP address; however, the skills needed for such a feat are not available to the researcher. Such tracking was neither sought nor desired, as this was an anonymous survey. A copy of the instrument is included in Appendix A.

### **Research Design**

The study employed a correlational design to determine whether a difference exists between the attitudes of general and special education teachers and their perceptions of their knowledge about and ability to provide modifications and accommodations to students with special needs in the general education classroom. The descriptive part of the study involved characterizing the sample of teachers across various measures. In brief, the study investigated the possible differences in perception of general and special education teachers, as well as differences between groups and within groups among predictor variables, resulting in a composite score for teachers’ perceptions of their knowledge about and skills relating to instruction and management of students with disabilities.

### **Data Analysis**

**Descriptive statistics.** For data obtained on the demographic questionnaire, appropriate descriptive statistics (means and standard deviations) were computed for the continuous data. These variables included teacher characteristics (sex, type of training to teach students with disabilities, years of teaching experience, years of teaching students with disabilities),

educational setting characteristics (grade levels, types of disabilities of students, subjects taught, minutes per day teaching students with disabilities), support for modification and accommodations (teacher assistants, collaboration with special education personnel, presence of a special education co-teacher), and administrative support.

**Inferential statistics.** In order to address the research questions regarding the difference in perceptions between general education teachers and special education teachers towards modification and accommodations of curriculum for students with special needs included in their classrooms, Levene's test for equality of variances was used to compare mean scores for the two groups of teachers, and T-tests were performed to test for variance between means.

Levene's test is an inferential statistic used to assess the equality of variances in different samples. T-tests assume that variances of the populations from which different samples are drawn are equal. Levene's test assesses the assumption of equal variances if the groups do not contain the same number of subjects. It tests the null hypothesis that the population variances are equal (called homogeneity of variance). If the resulting  $p$ -value of Levene's test is less than some critical value (typically 0.05), the obtained differences in sample variances are unlikely to have occurred based on random sampling. Thus, the null hypothesis of equal variances is rejected, and it is concluded that there is a difference between the variances in the population.

Procedures that typically assume homogeneity of variance include analysis of variance and  $t$ -tests. One advantage of Levene's test is that it does not require normality of the underlying data. Levene's test is often used before a comparison of means. When Levene's test is significant, modified procedures are used that do not assume equality of variance. The test statistic,  $W$ , is defined as

- $W$  is the result of the test,

- $k$  is the number of different groups to which the samples belong,
- $N$  is the total number of samples,
- $N_i$  is the number of samples in the  $i$ th group,

$Y_{ij}$  is the value of the  $j$ th sample from the  $i$ th group

$$Z_{ij} = \begin{cases} |Y_{ij} - \bar{Y}_{i\cdot}|, & \bar{Y}_{i\cdot} \text{ is a mean of } i\text{-th group} \\ |Y_{ij} - \tilde{Y}_{i\cdot}|, & \tilde{Y}_{i\cdot} \text{ is a median of } i\text{-th group} \end{cases}$$

Levene's test may also test a meaningful question in its own right if a researcher is interested in knowing whether population group variances are different (Levene, 1960).

In order to ensure against Type 1 errors a Bonferroni correction was performed. Shaffer (1995) states:

The Bonferroni correction is a multiple-comparison correction used when several dependent or independent statistical tests are being performed simultaneously (since while a given alpha value  $\alpha$  may be appropriate for each individual comparison, it is not for the set of *all* comparisons). In order to avoid a lot of spurious positives, the alpha value needs to be lowered to account for the number of comparisons being performed. The simplest and most conservative approach is the Bonferroni correction, which sets the alpha value for the entire *set* of  $n$  comparisons equal to  $\alpha$  by taking the alpha value for *each* comparison equal to  $\alpha/n$ . Explicitly, given  $n$  tests  $T_i$  for hypotheses  $H_i$  ( $1 \leq i \leq n$ ) under the assumption  $H_0$  that all hypotheses  $H_i$  are false, and if the individual test critical values are  $\leq \alpha/n$ , then the experiment-wide critical value is  $\leq \alpha$ . In equation form, if

$$P(T_i \text{ passes} \mid H_0) \leq \frac{\alpha}{n} \text{ for } 1 \leq i \leq n, \text{ then } P(\text{some } T_i \text{ passes} \mid H_0) \leq \alpha, \text{ which follows from the}$$

Bonferroni inequalities. (p. 569-570)

It was determined that analysis of variance (ANOVA) and other statistical methods were not necessary because only two groups comprised each comparison.

Independent variables included:

- Primary independent variables:

Type of teacher: Special education teacher or general education teacher.

Other independent variables were:

- Teacher characteristics (e.g., gender, type of training to teach students with disabilities, years of teaching experience, years of teaching students with disabilities);
- Educational setting, characteristics (e.g., grade levels, types of disabilities of students, subjects taught, time per day teaching students with disabilities);
- Perception of support for modifications and accommodations (e.g., paraprofessionals, collaboration with special education personnel, presence of a special education co-teacher, administrative support);
- Perceptions of preparedness.

Dependent variables included:

- Attitudes toward inclusion and modification;
- Perception of preparedness.

## **Summary**

The purpose of this study was to examine whether there is a difference in perceptions and attitudes between general and special education teachers towards their knowledge of and skills in instructing and managing students with special needs included in their classrooms. The study also examined the differences between an educator's perception of his/her knowledge and skills and selected demographic and descriptive characteristics, which included teacher education, educational setting and support for inclusion. Teachers in the study also indicated the amount of

support for inclusion they received from the following: a classroom assistant, special education personnel, a special education co-teacher, or an administrator. The target sample consisted of all general and special education teachers from one suburban school district in southeast Louisiana.

A modified Teacher Acceptability and Use Scale (TAUS) was the instrument used. Developed by Boulton (2003) following a review of the literature on accommodations for students with disabilities, TAUS includes a sampling of questions on common teacher accommodations and modifications and consisted of 28 questions. Additional questions were used to obtain demographic information. Descriptive, correlational, and inferential statistics were used to determine if differences existed between general and special education teachers in terms of their perception of their knowledge and skills in the use of accommodations and modifications of curricula for students with special needs.

## **Chapter 4**

### **Results**

This study examined the attitudes of teachers toward providing accommodations and modifications for students with special needs in the general education classroom. Specifically, the study addressed their willingness, as well as their perceptions of their preparedness, to provide appropriate accommodations and modifications to the curriculum for these students. Also considered was whether differences existed between the attitudes of general education teachers and special education teachers toward facilitating the success of students with special needs in the general education classroom.

Four major sections comprise this chapter. First, a description is provided of the response rate and sample characteristics of the teachers who participated in the study. Then the results of the survey instrument are reported and the results of the descriptive and inferential data analyses used to address the research questions are presented. The chapter concludes with a summary of the research findings.

The survey provided data from one selected school district in the southeastern United States serving students in pre-kindergarten (age 3) through grade 12. Although a total of 279 people participated in the study, the final sample consisted of 192 participants. Some potential participants did not complete the survey, and some did not fit into the survey categories (e.g., support personnel). Therefore, the response rate was 38.09%.

In an attempt to disaggregate the teacher data and to better understand the relationships between preparedness and willingness to make accommodations and modifications for students with disabilities, several independent variables were used. The research questions focused on

willingness and preparedness to make accommodations for students with disabilities, teacher type (special education or general education), and new or veteran teacher status. As a result, these were the major categories into which participating faculty members were divided.

The reason for conducting research on participants from either general education or special education was to investigate whether differences reported in earlier studies between the two groups still exist. At the time of this study, the sample school district was five years post-Hurricane Katrina, when levee failure caused cataclysmic flooding that destroyed or heavily damaged every school in the district. Because many veteran teachers retired or did not return immediately following the catastrophic flooding, the sample was divided into new teachers (those having five or fewer years of experience) and veteran teachers (those having six or more years experience) based on the rebuilding of this school district. As of August 2011, the district has rebuilt 10 of the 14 schools. Because of changes in the demographics of the district and changes to the high school program (consolidating three high schools into one), only one additional school is planned at this time.

### **Conceptual Framework**

The conceptual framework of this study is multifaceted, incorporating Fullan's change theory (2007a & b) and Vygotsky's (1997) zone of proximal development (ZPD) and related idea of scaffolding (Vygotsky, 1997). Fullan asked, "Under what conditions will culture change?"; responding, "The notion that external ideas alone will result in change in the classroom and school is deeply flawed as a theory of action" (2007a, p. 35). Instead, Fullan asserts that teachers must take ownership of change in order for it to happen and that internal collaboration is crucial for teachers in order to cope with change. Conversely, Vygotsky theorized that learning is dependent on social interaction and that the child must have reached a



certain level of cultural development for learning to occur. According to Vygotsky, therefore, a framework of multiple scaffolds, or temporary supports, allows each student to stay within his/her ZPD, which refers to the optimal level of difficulty where a learning task cannot be achieved independently, but can be achieved with support. He explored the nature of learning, the intricacies of interaction of human action and socio-cultural influence on cognitive development.

Combining aspects of both theories, this study argues that teachers must accept and internalize the need for change in the way students with special needs are taught in the general education classroom. Additionally, significant administrative support is essential in order for the general education teacher and special education teacher to have time plan and prepare appropriate accommodations and modifications for the successful inclusion of students with special needs. Also, the paraprofessional and special education teacher must be properly used to support both the general education teacher and the student with special needs in the inclusive classroom.

This chapter presents the descriptive data as well as inferential statistics. An anonymous web-based survey was made available to voluntary participants. The study examined the following questions regarding the success of students with special needs in general education classes:

RQ 1: Are there significant differences between the attitudes of general education teachers and special education teachers toward providing the necessary accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.1 Are there significant differences in attitude between new special education teachers and veteran special education teachers toward providing the necessary

accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.2: Are there significant differences in attitude between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.3: Are there significant differences in attitude between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 1.4: Are there significant differences in attitude between veteran general education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ2: Are there significant differences about the perception of preparedness between general education teachers and special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.1: Are there significant differences about the perception of preparedness between new special education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.2: Are there significant differences about the perception of preparedness between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.3: Are there significant differences about the perception of preparedness between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?

RQ 2.4: Are there significant differences about the perception of preparedness between veteran general education teachers and veteran special education teachers toward making accommodations and modifications of the general education curriculum for students with special needs?

### ***Participants***

The accessible population for this study was all teachers in the selected school district in southeast Louisiana. An e-mail was sent to all professional employees in the district requesting their participation in the study. At the time of the study, there were 493 employees considered “teachers” by the district, according to the funding for their pay. These employees received an e-mail using a list provided by the district. The e-mail contained a link to a web-based survey.

### **Response Rate**

A total of 279 out of 493 educators chose to participate. However, after removing from the database 46 participants who did not complete the study and 41 who were not part of the intended population, the number (*N*) was reduced to 192. The final number of participants from the selected school district, therefore, was 192. Of this number, 23 were special education teachers, 169 were general education teachers, 2 were cultural arts teachers (defined by the district as art, music, or physical education teachers), and 40 were “other” (including administrators, librarians, counselors, interventionists, math teachers, business teachers, JAG

[Jobs for America's Graduates] teachers, mentor teachers, inclusion specialists, and computer teachers).

Based on these numbers, the total response rate was determined to be 55%, but when the database was winnowed for incomplete surveys or participants not part of the intended population, the result was a response rate of 38.09%. The district identified 43 (8.7%) professional employees as special education teachers. Twenty-three respondents of the final sample who completed surveys identified themselves as special education teachers, for a response rate of 53.48%. The district identified 288 (58.4%) professional employees as general education teachers. In the final sample, 169 respondents who completed surveys identified themselves as general education teachers, for a response rate of 58.6%.

Table 5 presents the response rate for the overall sample. As illustrated, the percentages of respondents identifying themselves as either special or general education teachers are very similar to the percentages of district employees identified as special and general education teachers.

Table 5

*Frequency Counts for Selected Variables (N =192)*

		<i>N</i>	%	District <i>N</i>	District %
Q8	Special education teachers	23	11.97	43	8.7
	General education teachers	169	88.02	288	58.4
Q7	Female	152	79.2	402	81.15
	Male	26	13.5	91	18.45
	Veteran teachers	145	75.5	144	29.21
	New teachers	45	23.4	349	70.79
	New special education teachers	6	13.3		
	New general education teachers	39	86.7		

## **Characteristics of the Study Sample**

Demographic and descriptive data on the participants were obtained from questions in the survey instrument. Each participant was asked to respond to items regarding teacher characteristics as well as a description of the educational setting and the type of support they receive for inclusion. The teacher characteristics include gender, years of teaching experience, whether a special or general education teacher, type of certification, type of training to teach students with disabilities, and year of initial certification. The respondents were also asked to provide information about the level taught (e.g., elementary, middle, or secondary) and the disabilities of their students. Furthermore, the general education respondents were asked to indicate the amount of support they received for inclusion.

Information provided by the district included some educators who were not identified as general education or special education teachers (e.g., television technologists). Any teacher who did not return to the school district by the fall semester 2007 following Hurricane Katrina lost seniority and was rehired at zero-years seniority, contributing to the inordinately large number of new teachers identified by the district. This study used the number of years indicated in each participant's responses to determine new or veteran status.

### **Teacher Characteristics**

Of the sample, 152 (79.2%) respondents were female, 26 (13.5%) were male, and 14 people (7.3%) did not respond to this question. The sample included 89 elementary teachers for a percentage of 46.4%, which was only a little less than all other levels combined (51.1%). This level is consistent with district levels. District data indicate that there were 493 employees considered teachers. The district reports do not equal 100% because some employees were not

categorized by level. Teachers were asked to indicate their current teaching levels. The demographic item “grade level” examined the educational setting of the teachers’ inclusion experience. Both general and special education teachers answered this question.

Table 6 presents the grade levels for the overall sample. As indicated, the final sample across grade levels is similar to the district.

Table 6

*Grade Level Taught by Participants 2010-2011 (N =192)*

		<i>N</i>	%	District <i>N</i>	District %
Q16	Pre-Kindergarten	6	3.1	35	7.0
	Kindergarten	8	4.2	23	4.6
	Elementary	89	46.4	237	48.0
	Middle School	41	21.4	79	16.0
	Secondary	45	23.4	119	17.6

Respondents were also asked to indicate their number of years of teaching experience on a scale ranging from less than 1 year to more than 15 years. Table 7 summarizes the results.

Table 7

*Years of Teaching Experience Reported by Participants (N =192)*

		<i>N</i>	%
Q11	One year or less	8	4.2
	Two years	0	0
	Three years	6	3.1
	Four years	19	9.9
	Five years	12	6.3
	Six years	10	5.2
	Seven years	15	7.8
	Eight years	10	5.2
	Nine years	3	1.6
	Ten years	7	3.6
	Eleven years	4	2.1
	Twelve years	9	4.7
	Thirteen years	6	3.1
	Fourteen years	6	3.1
	Fifteen years	3	1.6
	More than fifteen years	72	37.5

Question 11 was used to divide the sample into new teachers (0-5 years of experience) and veteran teachers (6 or more years of experience). Two (.5%) respondents did not answer this question. Forty-five (23.5%) individuals reported that they had taught five years or less. One hundred forty-five (70.1%) had more than five years of experience. Eighty-seven (45.3%) teachers had more than 10 years' experience. Thus, the sample was comprised primarily of veteran teachers. This inequity might be related to the fact that this is a small district and the researcher has taught in the district for 23 years. A person who has taught in this district for several years is more likely to know the researcher and to participate in the study because of that knowledge.

Question 13 asked teachers to indicate if they were certified. One hundred eighty-two (95.8%) were certified teachers, eight (4.2%) were not, and two (1%) did not answer the question. A related question (28) asked if respondents were teaching outside of their area of certification. Eight (4.2%) teachers indicated that they were teaching outside their area of certification, 133 (69.3%) were teaching in their area of certification and 51 (26%) did not respond. Table 8 presents the results of questions 13 and 28.

Table 8

*Certified Teacher and Teaching Outside of Certification (N =192)*

		<i>N</i>	%
Q13	Yes (certified teacher)	182	94.8
	No (not certified)	8	4.2
	No answer	2	
Q28	Yes, teaching outside certification	8	4.2
	Not teaching outside of certification	133	69.3
	No answer	51	26.6

Responses to questions 13 and 28 reveal that the majority of the teachers who participated in the study were certified ( $N = 182$ , 94.8% of the total sample), and of that number,

a majority ( $N = 133$ ) were teaching in their area of certification (69.3% of the total sample). The number teaching in their area of certification may be higher than reported because of the large number of participants who did not answer the question. Teachers may not have responded if they were certified and teaching in their area of certification.

Question 14 asked respondents to write the year they received initial certification in a textbox. Responses ranged from 1967 to 2012. For simplification purposes, responses prior to 2000 are reported by decade. Table 9 presents the years of initial certification.

Table 9

*Year of Certification (N = 192)*

		<i>N</i>	%
Q 14	1960s	7	3.6
	1970s	23	12
	1980s	16	8.4
	1990s	28	14.5
	2000	4	2.1
	2001	12	6.3
	2002	6	3.1
	2003	4	2.1
	2004	6	3.1
	2000-2004	32	16.6
	2005	12	6.3
	2006	6	3.1
	2007	2	1.0
	2008	11	5.7
	2009	15	7.8
	2010	13	6.8
	2011	10	5.2
	Pending 2012	1	.5
	2005-2011	69	35.9
	2000-2011	101	

*Note.* Other answers: 3<sup>rd</sup> year, Elem. Ed. 1-8, Elementary, Elementary Education K-8, Mild/Mod K-12, N/A, secondary English, maybe 3<sup>rd</sup>, New Orleans, Louisiana, and 12/1/2002.



All respondents answered this question, although 15 answers did not directly respond to the question.<sup>1</sup> Collapsing the information into two categories, new teachers (0-5 years of experience) and veteran teachers (6 or more years of experience), showed that 120 (62.5%) people were certified prior to 2006. Fifty-six (29.1%) teachers had received certification since 2006, one (0.5%) anticipated completing certification in 2012; an additional 15 (7.8%) did not respond directly to the question.

It should be noted that teachers may teach up to three years with temporary certification in areas of high need, and this allowance may help explain differences between years of teaching experience and the year of certification. This, in conjunction with responses to questions 14 and 28, demonstrates that the sample consisted predominantly of veteran teachers, although many teachers in the study received initial certification after 2000, adding to the perception that this is a “young” district.

Table 10 summarizes the results for question 12, which asked respondents to indicate their highest degree. Two (1.04%) respondents did not answer this question

Table 10

*Highest Degree Earned (N = 192)*

		<i>N</i>	%
Q12	Bachelor's	113	58.9
	Master's	69	35.9
	Specialist	3	1.6
	Doctorate	5	2.6

In question 15 teachers were asked the primary route to initial certification. Three teachers did not respond to this question. One hundred and sixteen (60.4%) teachers indicated

that they had received a traditional undergraduate degree from a college of education. Teacher-practitioner programs accounted for nine (4.7%) teachers. Alternative teacher certification was selected by 39 (20.3%) teachers. Fifteen respondents (7.8%) chose Teach for America. Ten (5.2%) teachers marked “other”.

Table 11

*Route to Initial Certification(N =192)*

		<i>N</i>	<i>%</i>
<b>Q15</b>	Traditional undergraduate degree	160	60.4
	Teacher practitioner	9	4.7
	Alternative certification	39	20.3
	Teach for America	15	7.8
	Other	10	5.2

*Note.* Other answers included: “post-baccalaureate program, masters, M. Ed, n/a, and Holmes program LSU, B. A. History. Soc. Stu. Licensure in VA, 75 hours of graduate school that cost \$45,000 to be certified Special Education MM1-12, masters.”

Question 17 asked respondents to indicate if, within the last four years, they had received training for teaching students with disabilities in the general education classroom and to indicate the type of training (e.g., university class, professional development provided by either the district or state). Forty-five (23.4%) respondents did not answer the question. Nineteen (9.9%) teachers reported that they had no formal training for teaching students with disabilities in the general education classroom. Fifty-six (29.2%) teachers reported that they had received training through university courses, 45 (23.4%) indicated training in workshops. Nineteen teachers received no training, and 17 teachers responded “other.”

The results are summarized in Table 12.

Table 12

*Accommodation/ Modification Training (N = 192)*

		<i>N</i>	<i>%</i>
Q17	None	19	9.9
	University courses	56	29.2
	Workshops	45	23.4
	Other	17	8.9
	No response	136	70.8

*Note.* Respondents may have answered more than one category. Other answers: “Multiple workshops ranging from partial day to 3 days,” “4 JAG conventions,” “not sure,” “job-embedded PD throughout the year,” “semester; 1/2day and day several times,” “UNO ED classes,” “District and in-school,” “3-day workshop,” “TAP,” and “as needed.”

Table 13 shows the amount of training reported by participants. A large number of respondents failed to answer this question. For those who answered this question, the primary source of training in accommodation and modification was through university coursework, followed closely by workshops. Twenty respondents indicated receiving training in five or more university classes

Table 13

*Amount of Professional Development (N = 192)*

	<i>N</i>	<i>%</i>
<b>Q19</b> 1 university class	8	4.2
2 university classes	11	5.7
3 university classes	11	5.7
4 university classes	5	2.6
5 university classes	20	10.4
No response	137	71.4
<b>Q20</b> ½ day workshop	39	20.3
One day workshop	52	27.1
2 day workshop	51	26.6
Year-long study group (e.g., Sun Center)	8	4.2
Other	17	8.9

*Note.* Other responses: “ongoing,” “semester,” “½ day and several times,” “JAG conventions,” “TAP,” “Teach for America training,” “district and in school,” “multiple workshops ranging from ½ day to several days,” “job embedded PD throughout the year,” and “ED classes.”

### **Student Characteristics**

Question 20 asked teachers to indicate if within the past two years they had taught students with exceptionalities identified according to Louisiana Department of Education Bulletin 1508 (2009). Respondents were asked to select “all that apply,” thus the percentages do not equal 100. Table 14 displays the frequency counts for these exceptionalities.

Table 14

*Exceptionalities (N =192)*

<b>Exceptionality</b>		<b>N</b>	<b>%</b>
<b>Q20</b>	No	15	7.8
	Autism spectrum disorders	65	33.9
	Deaf blindness	13	6.8
	Developmental delay	67	34.9
	Emotional disturbance	121	63
	Hearing impairments	45	23.4
	Mental disability – mild degree of impairment	77	40.1
	Mental disability – profound degree of impairment	9	4.7
	Multiple disabilities	46	24
	Orthopedic impairment	32	16.7
	Other health impairment	64	33.3
	Specific learning disability	113	58.9
	Speech or language impairment	104	54.2
	Traumatic brain injury	16	8.3
	Visual impairment	16	8.3
	Gifted	74	38.5
	Talented	44	22.9

Fifteen teachers (7.8%) indicated that they had not taught any students with disabilities in the past two years. At the time of the study, there were 612 students with IEPs according to district data. The district indicated that there were more students with speech or language impairments than any other group, followed by students with specific learning disabilities. Some categories are largely over-reported based on the actual numbers of students identified with these

exceptionalities (e.g., autism spectrum disorders, deaf-blindness, emotional disturbance, and multiple disabilities). This may be a result of teachers' perceptions of some students being more "difficult to teach."

### **Summary of Characteristics of the Study Sample**

Subjects of this study were 192 general and special education teachers serving preschool (age 3) through 12<sup>th</sup> grade in one southeast Louisiana school district. The majority of the sample was veteran, female, general education elementary school teachers. Forty-five teachers were considered new whereas 145 were considered veteran. One hundred seventy-seven (92.18%) reported that they had taught students with disabilities in the past two years. Fewer than 10% of the sample who answered the question about training indicated that they had not received some training in the past four years about teaching students with disabilities in the general education classroom. However, a large number of teachers did not answer that question.

### **Educational Setting Characteristics**

Special education teachers were asked to indicate their primary setting in Question 10, "Self-contained special education class, general education inclusion class, special education resource room, combination inclusion/resource room, or other." All 23 special education teachers answered this question. Eleven (47.82%) indicated that at least some part of their day was spent in an inclusion class. This is similar to national statistics for students, which show that roughly half of all students with disabilities are included in general education classes for the majority of their school day. Eight (4.2%) teachers marked "self-contained special education class." Seven (3.6%) teachers chose "general education inclusion class." Two (8.69%) each chose "resource room" and "other" as their primary placement. "Other" was defined as "gifted" and "middle school at the alternative school."

Table 15 displays the frequency counts for “setting” for the overall sample.

Table 15

*Setting (N =23)*

		<i>N</i>	%
<b>Q10</b>	Self-contained special education class	8	34.78
	General education inclusion class	7	30.43
	Resource room	2	8.69
	Combination inclusion class/resource room	4	17.39
	Other	2	8.69

### Support characteristics.

In question 9 general education teachers were asked to indicate the type and level of support they received in their general education class to facilitate inclusion of students with disabilities. Table 16 provides a summary of the support characteristics for the overall sample.

Table 16

*Summary of Support Characteristics (N =168)*

	<i>N</i>	<i>%</i>
<b>Q2</b> Full-time special education co-teacher	5	2.6
Part-time special education co-teacher	18	9.4
Full-time special education paraprofessional	6	3.1
Part-time special education paraprofessional	14	7.3
Educational interpreter	15	7.8
Assistance in planning and creating accommodations/modifications	56	33.13
None	2	.012
No answer	53	31.36

About one third of general education participants did not respond to the question about the amount of support they received. Those respondents who answered indicated that a full-time special education teacher was provided to five (2.6%) teachers and a full-time paraprofessional was provided to six (3.1%) teachers. A part-time special education co-teacher was provided to 18 (9.4%) teachers and part-time paraprofessional was provided to 14 (7.3%) teachers. An educational interpreter was provided to 15 (7.8%) teachers. A majority of 56 teachers (29.2%) noted that they received assistance in planning and creating accommodations. Although these



data indicate that teachers were equally likely to receive full- or part-time support from a special education co-teacher or a special education paraprofessional, the large number of non-responders makes interpretation of these data difficult.

In question 21 teachers were asked how much time they spent in a typical week preparing accommodations and modifications for students with disabilities. Answer choices were (a) less than one hour, (b) one to two hours, (c) three to four hours, (d) five hours or more. Table 17 summarizes the results. Seven teachers did not respond to this question.

Table 17

*Time Spent Preparing Accommodations and Modifications in Typical Week (N =192)*

		<i>N</i>	<i>%</i>
<b>Q21</b>	Less than one hour	59	30.7
	One to two hours	71	37
	Three to four hours	37	19.3
	Five hours or more	18	9.4

Seventy-one teachers (37%) indicated that they spent one to two hours per week preparing accommodations and modifications for students. Fifty-nine teachers (30.7%) indicated that they spent less than one hour per week preparing accommodations and modifications.

In question 29 respondents were asked how much time they spent making accommodations and modifications for students in a typical week. Answer choices were (a) three hours or less, (b) four to six hours, (c) seven to nine hours, or (d) ten hours or more. Six teachers did not respond to question 29. Table 18 summarizes the results.

Table 18

*Time Spent Making Accommodations and Modifications in a Typical Week (N =192)*

	<i>N</i>	%
<b>Q29</b> Three hours or less	89	46.4
Four to six hours	52	27.1
Seven to nine hours	32	16.7
Ten or more hours	13	6.8

Respondents were also asked if the accommodations and modifications they made were primarily curriculum related, testing related, social/behavioral or a combination. Fifty-five teachers did not respond to this question Table 19 summarizes the results.

Table 19

*Types of Accommodations/Modifications (N =192)*

	<i>N</i>	%
<b>Q22</b> Primarily curriculum related	29	15.1
Primarily testing related	16	8.3
Primarily social/behavioral related	8	4.2
Combination	83	43.8
No response	55	28.64

As indicated in Table 19, the majority of teachers ( $N = 83$ , 43.8%) responded that the accommodations and modifications they made were a combination of curriculum, testing, and social/ behavioral. Few teachers ( $N = 8$ , 4.2%) selected social/behavioral as their primary type of accommodation or modification. This latter statistic is encouraging, as the impact of the behavior of students with special needs was a frequent concern expressed in early inclusion literature.

However, because of the large number of non-respondents to this question, any conclusions must be drawn with extreme caution.

Table 20

*Mean and Standard Deviation for Selected Variables*

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
Years' experience – whole sample	190	11.27	5.902
Years' experience – new teachers	45	3.60	1.372
Years' experience – veteran teachers	145	13.66	4.586

**Descriptive Analysis of Survey Instrument Scores**

A descriptive analysis was conducted to compute the range, mean, and standard deviation values for the items in the survey instrument, the modified TAUS (Boulton, 2003). An interpretation of the scores is based on the scoring developed for the study described in Chapter 3.

**Frequency scores.** Respondents used a 5-item Likert-type scale to rate their willingness to make 28 accommodations or modifications. Table 21 lists the mean scores by group for each variable.

Table 21

*Comparison of Educators' Willingness to Make**Accommodations or Modifications by Group*

	<b>Accommodation/ Modification</b>	<b>Sp. Ed.</b>	<b>Gen'l Ed.</b>	<b>New</b>	<b>Vet.</b>	<b>New Sp. Ed.</b>	<b>Vet. Sp. Ed.</b>	<b>New Gen'l Ed.</b>	<b>Vet. Gen'l Ed.</b>
<b>W1</b>	Cooperative learning	4.87	4.90	4.96	4.88	4.83	4.88	4.97	4.87
<b>W2</b>	Extended time	4.83	4.82	4.71	4.79	4.67	4.88	4.83	4.83
<b>W3</b>	Graphic organizers	5.00	4.83	4.91	4.81	5.00	5.00	4.94	4.78
<b>W4</b>	Oral testing	4.91	4.54	4.60	4.47	4.83	4.94	4.60	4.51
<b>W5</b>	Direct teaching	4.83	4.56	4.69	4.62	5.00	4.76	4.60	4.54
<b>W6</b>	Grading adaptations	4.78	4.05	4.40	4.01	4.67	4.82	4.37	3.94
<b>W7</b>	Lessen distractions	4.83	4.63	4.69	4.66	4.83	4.82	4.63	4.63
<b>W8</b>	Peer tutoring	4.87	4.70	4.73	4.77	4.83	4.88	4.71	4.70
<b>W9</b>	Alternate assignments	4.87	4.44	4.51	4.47	4.83	4.88	4.43	4.44
<b>W10</b>	Break-up assignments	4.78	4.58	4.67	4.54	4.83	4.76	4.66	4.55
<b>W11</b>	Fewer assignments	4.52	3.93	3.98	4.09	4.17	4.65	3.94	3.96
<b>W12</b>	Differing questions	4.78	4.43	4.49	4.47	4.83	4.76	4.53	4.43
<b>W13</b>	Varied instruction rate	4.83	4.35	4.44	4.40	4.83	4.82	4.31	4.36
<b>W14</b>	Highlight text	4.91	4.48	4.76	4.47	5.00	4.88	4.71	4.37
<b>W15</b>	Adapt tests	4.70	4.13	4.56	4.15	4.83	4.65	4.49	4.02
<b>W16</b>	Drill or practice	4.87	4.67	4.69	4.74	5.00	4.82	4.63	4.67
<b>W17</b>	Assignment length	4.78	4.45	4.56	4.50	4.83	4.76	4.54	4.45
<b>W18</b>	Organizational strategies and supports	4.91	4.44	4.62	4.50	5.00	4.88	4.54	4.39
<b>W19</b>	Simplify materials	4.83	4.28	4.44	4.31	5.00	4.76	4.40	4.27
<b>W20</b>	Oral and written directions	4.96	4.75	4.89	4.78	5.00	4.94	4.89	4.69
<b>W21</b>	Dictated answers	4.52	4.23	4.07	4.29	4.67	4.47	4.06	4.30
<b>W22</b>	Break down tasks	4.87	4.67	4.77	4.69	5.00	4.82	4.74	4.65
<b>W23</b>	Alternative books	4.87	4.52	4.73	4.48	5.00	4.82	4.74	4.43
<b>W24</b>	Differentiation	4.91	4.73	4.87	4.73	5.00	4.88	4.86	4.69
<b>W25</b>	Hands-on activities or manipulatives	5.00	4.90	4.95	4.91	5.00	5.00	4.94	4.89
<b>W26</b>	Allow students to draw pictures/diagrams	4.87	4.65	4.76	4.65	5.00	4.82	4.69	4.64
<b>W27</b>	Word processors	4.91	4.45	4.67	4.52	4.83	4.94	4.66	4.37
<b>W28</b>	Calculators/ math	4.87	3.94	4.40	4.06	4.83	4.88	4.31	3.80

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facts

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*Note.* 1 = definitely not willing; 2 = probably not willing; 3 = don't know; 4 = probably willing; 5 = definitely willing.

As illustrated, overall, teachers reported a high level of willingness to make accommodations and modifications. No variable received mean scores in either the “definitely not willing” or the “probably not willing” range. Only three items had means in the “don’t know range” (3-3.99). They were “allow students to use calculators or math facts sheets” (3.8 – veteran general education teachers; 3.94 - new general education teachers), “assign fewer assignments” (3.94 – new general education teachers), and “use grading adaptations” (3.94 –veteran general education teachers). The lowest mean score given by veteran general education teachers for “allow students to use calculators or math facts sheets” (3.8) was still fairly high. Although “assign fewer assignments” had the lowest mean score among special education teachers it was still rated “probably willing (4.52). Respondents perceived themselves as most willing to “allow students to use hands-on activities or manipulatives.” Special education teachers in all groups indicated that they were “definitely willing” (5) to use this accommodation.

Table 22 shows the mean scores by group of teachers’ perceptions of their preparedness to make accommodations and modifications for students with disabilities included in the general education classroom. Teachers responded to a 28-item Likert-type scale.

Table 22

*Preparedness to Make Accommodations/Modifications by Group (Mean Scores)*

	<b>Accommodation/ Modification</b>	<b>Sp. Ed.</b>	<b>Gen'l Ed.</b>	<b>New</b>	<b>Vet.</b>	<b>New Sp. Ed.</b>	<b>Vet. Sp. Ed.</b>	<b>New Gen. Ed.</b>	<b>Vet. Gen'l Ed.</b>
<b>P1</b>	Cooperative learning	4.70	4.53	4.40	4.56	4.50	4.76	4.34	4.60
<b>P2</b>	Extended time	4.96	4.56	4.51	4.58	5.00	4.94	4.49	4.61
<b>P3</b>	Graphic organizers	4.70	4.30	4.29	4.34	4.67	4.71	4.20	4.33
<b>P4</b>	Oral testing	4.96	4.30	4.36	4.35	5.00	4.94	4.26	4.31
<b>P5</b>	Direct teaching	4.00	3.98	3.89	4.05	3.83	4.06	3.83	4.01
<b>P6</b>	Grading adaptations	4.57	3.68	3.76	3.78	4.17	4.71	3.66	3.69
<b>P7</b>	Lessen distractions	4.57	4.22	4.09	4.39	4.50	4.59	3.94	4.33
<b>P8</b>	Peer tutoring	4.70	4.39	4.18	4.54	4.50	4.76	4.09	4.51
<b>P9</b>	Alternate assignments	4.61	3.92	3.82	4.13	4.50	4.65	3.66	4.02
<b>P10</b>	Break up assignments	4.43	4.09	4.07	4.18	4.33	4.47	3.97	4.12
<b>P11</b>	Fewer assignments	4.74	4.09	4.20	4.12	5.00	4.65	4.09	4.08
<b>P12</b>	Differing questions	4.43	4.11	4.11	4.14	4.33	4.47	4.11	4.11
<b>P13</b>	Varied instruction rate	4.61	4.06	4.02	4.15	4.33	4.71	3.94	4.11
<b>P14</b>	Highlight text	4.74	4.27	4.44	4.28	4.83	4.71	4.46	4.18
<b>P15</b>	Adapt tests	4.30	3.85	3.98	3.87	4.67	4.18	3.80	3.85
<b>P16</b>	Drill or practice	4.83	4.34	4.33	4.46	4.83	4.82	4.26	4.37
<b>P17</b>	Assignment length	4.91	4.33	4.33	4.38	4.83	4.94	4.26	4.36
<b>P18</b>	Organizational strategies and supports	4.48	4.05	4.09	4.08	4.33	4.53	4.00	4.04
<b>P19</b>	Simplify materials	4.35	3.86	4.02	4.88	4.83	4.18	3.79	3.88
<b>P20</b>	Oral and written directions	4.91	4.53	4.69	4.59	5.00	4.88	4.66	4.47
<b>P21</b>	Dictated answers	4.61	4.10	4.07	4.07	5.00	4.47	4.03	4.11
<b>P22</b>	Break down tasks	4.74	4.24	4.20	4.32	4.83	4.71	4.09	4.28
<b>P23</b>	Alternative books	4.35	3.89	3.80	5.00	3.83	4.53	3.71	3.96
<b>P24</b>	Differentiation	4.61	4.11	4.04	4.18	4.33	4.71	3.97	4.18
<b>P25</b>	Hands-on activities or manipulatives	4.43	4.41	4.31	4.42	4.33	4.47	4.29	4.45
<b>P26</b>	Allow students to draw pictures/diagrams	4.61	4.49	4.53	4.42	4.67	5.59	4.49	4.48
<b>P27</b>	Word processors	4.70	4.01	4.33	4.03	4.67	4.71	4.23	3.90
<b>P28</b>	Calculators	4.96	3.94	4.47	3.90	4.83	5.00	4.37	3.74

Note. 1 = definitely not prepared; 2 = probably not prepared; 3 = somewhat prepared; 4 = mostly prepared; 5 = 100% prepared.

As illustrated, there were no variables with a mean of less than 3.0, so the average was neither in the “definitely not prepared” nor the “probably not prepared” range. In fact, the lowest mean was 3.6, solidly locating all of the mean scores in the top two quartiles. Simplifying text material was ranked low by almost every group as was “directly teach students strategies.” As a whole, therefore, teachers were more willing than prepared to make accommodations and modifications for students with special needs.

In an effort to better understand the data, an arbitrary decision was made to rank each group’s responses by mean score and standard deviation. The top and bottom three accommodations and modifications for each group are presented in the frequency tables below. The results for special educators are presented in Table 23 (willingness) and Table 24 (preparedness).

Table 23

*Selected Frequencies for Special Education Teachers’ Willingness (Taken as a Group) to Make Accommodations/Modifications (N =23)*

	<b>Rank</b>	<b>Accommodation/ Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>W3</b>	1	Graphic organizers	23	5.00	.000
<b>W25</b>	1	Hands-on activities or manipulatives	23	5.00	.000
<b>W20</b>	2	Oral and written directions	23	4.96	.209
<b>W10</b>	3	Break down assignments	23	4.78	.850
<b>W15</b>	26	Adapt test format	23	4.70	.703
<b>W11</b>	27	Fewer assignments	23	4.52	.846
<b>W21</b>	28	Dictated answers	23	4.52	.846

Table 24

*Selected Frequencies for Special Education Teachers' Preparedness as a Group to Make Accommodations/Modifications (N =23)*

	<b>Rank</b>	<b>Accommodation/ Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>P28</b>	1	Calculators or math fact sheets	23	4.98	.209
<b>P2</b>	2-3	Extended time	23	4.96	.209
<b>P4</b>	2-3	Oral testing	23	4.96	.209
<b>P19</b>	26	Simplify text materials	23	4.35	1.071
<b>P15</b>	27	Adapt the format of tests	23	4.30	1.020
<b>P5</b>	28	Direct teaching	23	4.00	1.243

Special educators as a group were willing and prepared to make most of the accommodations described on the instrument. The mean scores ranged from 4 (preparedness for direct teaching) to 5 (willingness to use graphic organizers and manipulatives). Oddly, none of the accommodations were included on both lists of the highest and lowest rated accommodations by special educators. In contrast to general education teachers, the variable given the highest mean score by special education teachers as a group was “allow students to use calculators or math facts sheets.”

Table 25 (willingness) and Table 26 (preparedness) present the accommodations and modifications rated the highest and lowest by general education teachers taken as a group



Table 25

*Selected Frequencies for General Education Teachers' (Taken as a Group) Willingness to Make Accommodations/Modifications (N =169)*

	<b>Rank</b>	<b>Accommodation/ Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>W1</b>	2	Cooperative learning	169	4.90	3.76
<b>W3</b>	3	Graphic organizers	169	4.83	.440
<b>W25</b>	1	Hands-on activities or manipulatives	168	4.41	.332
<b>W6</b>	26	Grading adaptations	169	4.40	1.144
<b>W28</b>	27	Calculators or math fact sheets	169	3.94	1.619
<b>W11</b>	28	Fewer assignments	169	3.93	1.272

Table 26

*Selected Frequencies for General Education Teachers' (Taken as a Group) Preparedness to Make Accommodations/Modifications (N =169)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>P2</b>	1	Extended time	169	4.56	.815
<b>P1</b>	2	Cooperative learning	169	4.53	.653
<b>P20</b>	3	Oral and written directions	169	4.53	1.071
<b>P19</b>	26	Simplify text	168	3.86	1.227
<b>P15</b>	27	Adapt test format	169	3.85	1.240
<b>P6</b>	28	Grading adaptations	169	3.68	1.343

As a group, general education teachers were “probably willing” to make accommodations and modifications for students with disabilities. Further, they were highly willing and highly prepared to use cooperative learning as an accommodation. Mean scores ranged from “assign fewer assignments” to “use cooperative learning strategies and use hands-on materials and manipulatives.” “Assign fewer assignments” and “allow students to use calculators or math facts

sheets” were the only modifications to receive a “don’t know” rating for willingness. Simplifying text material,” “adapting test format,” and “making grading adaptations” were rated the lowest by general education teachers. However, no variable received mean scores lower than 3.68, indicating that, on the whole, general educators perceived themselves as willing and prepared to make accommodations and modifications for students with special needs included in the general education classroom.

Table 27 (willingness) and Table 28 (preparedness) present the accommodations and modifications rated the highest and lowest by new teachers taken as a group.

Table 27

*Selected Frequencies for New Teachers’ (Taken as a Group) Willingness to Make*

*Accommodations/ Modifications (N =45)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>W1</b>	1	Cooperative learning	45	4.96	.208
<b>W25</b>	2	Hands-on activities or manipulatives	44	4.96	.211
<b>W3</b>	3	Graphic organizers	45	4.91	.288
<b>W28</b>	26	Calculators or math fact sheets	45	4.40	1.214
<b>W21</b>	27	Dictated answers	45	4.07	.986
<b>W11</b>	28	Fewer assignments	45	3.98	1.138

Table 28

*Selected Frequencies for New Teachers’ (Taken as a Group) Preparedness to Make*

*Accommodations/Modifications (N =45)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>P20</b>	1	Oral and written directions	45	4.69	.668
<b>P26</b>	2	Draw pictures/diagrams for written assignments	45	4.53	.786
<b>P2</b>	3	Extended time	45	4.51	.787

<b>P9</b>	26	Alternative assignments	45	3.82	1.051
<b>P23</b>	27	Alternative books	45	3.80	.968
<b>P6</b>	28	Grading adaptations	45	3.76	1.004

As shown in Table 27, new teachers as a group perceived themselves as “probably willing” to make accommodations and modifications for students with special needs who are included in the general education classroom. The only accommodation to receive a rating of “don’t know” was “assign fewer assignments.”

It is apparent from the standard deviations in Table 28 that there was some variance among new teachers in their perception of their preparedness to make accommodations and modifications. All new teachers perceived a high level of preparedness to make accommodations and modifications. However, as with all the teachers in this study, their perceived level of preparedness was lower than their perceived willingness, with means ranging from 3.76 (preparedness to “use grading adaptations for students”) to 4.96 (willingness to “provide oral and written directions”). Several accommodations were scored in the “somewhat prepared” range, including “use grading adaptations for students,” “use alternative forms of textbooks or trade books,” “assign alternative assignments or projects to students,” “directly teach students strategies to problem solve,” and “adapt the format of tests.” All means were solidly in the top two quartiles.

Tables 29 and 30 present the frequencies of veteran teachers’ willingness and preparedness to make accommodations.

Table 29

*Selected Frequencies for Veteran Teachers' (Taken as a Group)*

*Willingness to Make Accommodations/Modifications (N =145)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>W25</b>	1	Hands-on activities or manipulatives	145	4.91	.310
<b>W1</b>	2	Cooperative learning	145	4.88	.389
<b>W3</b>	3	Graphic organizers	145	4.81	.581
<b>W11</b>	26	Fewer assignments	144	4.09	1.229
<b>W28</b>	27	Calculators or math fact sheets	145	4.06	1.569
<b>W6</b>	28	Grading adaptations	145	4.01	1.302

Table 30

*Selected Frequencies for Veteran Teachers' (Taken as a Group)*

*Preparedness to Make Accommodation/Modifications (N =145)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>P20</b>	1	Oral and written directions	145	4.59	1.017
<b>P2</b>	2	Extended time	145	4.58	9.84
<b>P1</b>	3	Cooperative learning	145	4.56	.633
<b>P19</b>	26	Simplify text material	145	3.88	1.328
<b>P15</b>	27	Adapt the format of tests	145	3.87	1.292
<b>P6</b>	28	Grading adaptations	144	3.78	1.455

As illustrated, veteran teachers were “probably willing” to make all of the accommodations listed on the instrument. The most acceptable accommodation was “use hands-on activities or manipulatives,” whereas “use grading adaptations” and “allow students to use calculators or math fact sheets” were ranked the lowest. However, when this group was further divided into special education and general education veteran teachers, “assign fewer

assignments” was clearly the least acceptable. This is probably because there were 128 veteran general education teachers and only 17 veteran special education teachers in the sample.

Veteran teachers also had high levels of perceptions of preparedness to implement modifications and accommodations, with mean scores ranging from 3.78 for “use grade adaptations for students” to 4.59 for “provide oral and written directions.” As with the new teachers, veteran teachers’ mean scores for preparedness were lower overall than their mean scores for willingness. Several accommodations received mean scores in the “don’t know” range, including “adapt the format of tests,” “use grading adaptations for students,” “simplify text material,” and “allow students to use calculators or math fact sheets.” The standard deviations were also larger for veteran teachers than for any other group.

Results of the lowest and highest variables for willingness (Table 31) and preparedness (Table 32) are shown below for new general education teachers.

Table 31

*Selected Frequencies for New General Education Teachers’ Willingness to Make*

*Accommodations/Modifications (N = 35)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>W1</b>	1	Cooperative learning	35	4.97	.169
<b>W25</b>	2	Hands-on activities or manipulatives	35	4.94	.239
<b>W3</b>	3	Graphic organizers	35	4.94	.236
<b>W13</b>	26	Vary instruction rate	35	4.31	.796
<b>W21</b>	27	Dictated answers	35	4.06	.838
<b>W11</b>	28	Fewer assignments	35	3.94	1.187

Table 32

*Selected Frequencies for New General Education Teachers' Preparedness to Make**Accommodations/Modifications (N = 35)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>P20</b>	1	Oral and written directions	35	4.66	.684
<b>P26</b>	2	Draw pictures/diagrams on assignments	35	4.49	.853
<b>P2</b>	3	Extended time	35	4.49	.742
<b>P23</b>	26	Alternative books	35	3.71	.957
<b>P9</b>	27	Alternative assignments	35	3.66	1.110
<b>P6</b>	28	Grading adaptations	35	3.66	1.027

New general education teachers were probably willing to make most accommodations and modifications included on the instrument. The only item to receive a mean score in the “don’t know range was “fewer assignments.” Only eight items received mean scores lower than 4.50 (fewer assignments, 3.94; dictated answers, 4.06; calculators, 4.31; varied instruction rate, 4.31; simplify materials, grading adaptations, 4.40; alternate assignments, 4.43; adapt tests, 4.49).

The results of the lowest and highest variables for willingness (Table 33) and preparedness (Table 34) for new special education teachers are shown below.

Table 33

*Selected Frequencies for New Special Education Teachers' Willingness to*

*Make Accommodations/Modifications (N =6)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>W3</b>	1	Graphic organizers	6	5.00	.000
<b>W5</b>	1	Direct teaching	6	5.00	.000
<b>W14</b>	1	Highlight text	6	5.00	.000
<b>W16</b>	1	Drill or practice	6	5.00	.000
<b>W18</b>	1	Organizational strategies and supports	6	5.00	.000
<b>W18</b>	1	Simplify text	6	5.00	.000
<b>W20</b>	1	Oral and written directions	6	5.00	.000
<b>W22</b>	1	Break down tasks or concepts	6	5.00	.000
<b>W23</b>	1	Alternative forms of books	6	5.00	.000
<b>W24</b>	1	Differentiated instruction	6	5.00	.000
<b>W25</b>	1	Hands-on activities or manipulatives	6	5.00	.000
<b>W26</b>	1	Allow students to draw pictures/diagrams	6	5.00	.000
<b>W6</b>	26	Grading adaptations	6	4.67	.516
<b>W21</b>	26	Dictated answers	6	4.67	.516
<b>W2</b>	27	Extended time	6	4.67	5.16
<b>W11</b>	28	Fewer assignments	6	4.17	1.169

Table 34

*Selected Frequencies for New Special Education Teachers' Preparedness to Make*

*Accommodations/Modifications (N =6)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>P2</b>	1	Extended time	6	5.00	.000
<b>P4</b>	2	Oral testing	6	5.00	.000
<b>P11</b>	3	Fewer assignments	6	5.00	.000
<b>P6</b>	26	Grading adaptations	6	4.17	.753
<b>P23</b>	27	Alternative forms of books	6	3.83	1.169

<b>P5</b>	28	Direct teaching	6	3.83	.983
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New special education teachers rated themselves as “definitely willing” to make 12 of the 28 accommodations. Although they were least willing to “assign fewer assignments” or “use alternative forms of books,” they still strongly indicated that they were “probably willing” to do so.

There was very little difference among the answers given by new special education teachers, who, as a whole, felt they were prepared to make most of the accommodations or modifications on the questionnaire. One interesting finding among new special education teachers was that they were “100% prepared” to make grading adaptations for students,” but the mean score for their willingness to “make grading adaptations was well below their other mean scores at 4.17. However, with only six respondents identifying themselves as new special education teachers, this difference is probably not worthy of measure.

The lowest and highest variables for willingness (Table 35) and preparedness (Table 36) for veteran special education teachers are displayed below.

Table 35

*Selected Frequencies for Veteran Special Education Teachers’ Willingness to Make Accommodations/Modifications (N =17)*

	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>W3</b>	1	Graphic organizers	17	6.00	.001
<b>W25</b>	1	Hands-on activities or manipulatives	17	5.00	.001
<b>W4</b>	2	Oral testing	17	4.94	.243
<b>W27</b>	2	Word processors	17	4.94	.243
<b>W20</b>	2	Oral and written directions	17	4.94	.943
<b>W11</b>	10	Fewer assignments	17	5.65	.702
<b>W15</b>	11	Adapt the format of tests	17	4.65	.786



<b>W21</b>	12	Dictated answers	17	4.47	.943
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Table 36

*Selected Frequencies for Veteran Special Education Teachers' Preparedness to Make Accommodations/Modifications (N =23)*

	<b>Rank</b>	<b>Accommodation/ Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>P28</b>	1	Calculators or math fact sheets	17	5.00	.001
<b>P2</b>	2	Extended time	17	4.94	.243
<b>P4</b>	2	Oral testing	17	4.94	.243
<b>P17</b>	2	Adjust the length of assignments	17	4.94	.243
<b>P15</b>	19	Adapt the format of tests	17	4.18	1.074
<b>P19</b>	20	Simplify text material	17	4.18	1.185
<b>P5</b>	21	Direct teaching	17	4.06	1.345

The lowest and highest variables for willingness (Table 37) and preparedness (Table 38) for veteran general education teachers are displayed below.

Table 37

*Selected Frequencies for Veteran General Education Teachers' Willingness to Make Accommodations/Modifications (N =89)*

	<b>Rank</b>	<b>Accommodation/modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>W25</b>	1	Hands-on activities or manipulatives	89	4.89	.352
<b>W1</b>	2	Cooperative learning	89	4.87	.431
<b>W2</b>	3	Extended time	89	4.83	.458
<b>W11</b>	26	Fewer assignments	89	3.96	1.305
<b>W6</b>	27	Grading adaptations	89	3.94	.930
<b>W28</b>	28	Calculators or math fact sheets	89	3.80	1.720

Table 38

*Selected Frequencies for Veteran General Education Teachers' Preparedness to Make Accommodations/Modifications (N = 89)*

	<b>Rank</b>	<b>Accommodation/ Modification</b>	<b>N</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>P2</b>	1	Extended time	89	4.61	.834
<b>P1</b>	2	Cooperative learning	89	4.60	.598
<b>P8</b>	3	Peer tutoring	89	4.51	.854
<b>P15</b>	26	Adapt the format of tests	89	3.85	1.328
<b>P28</b>	27	Calculators or math fact sheets	89	3.74	1.774
<b>P6</b>	28	Grading adaptations	89	3.69	1.458

Although, still quite strong, no accommodation or modification fell below 3.69, veteran general educators as a group achieved the lowest mean scores overall. “Allowing students to use calculators or math facts sheets” and “grading adaptations” had the lowest means of any accommodation or modification on both willingness and preparedness.

Overall, teachers in all groups rated themselves “probably willing” and “mostly prepared” to make accommodations and modifications for students with special needs included in the general education classroom. The scores of general education teachers, and veteran general education teachers in particular, were lower than those of special education teachers, but not much lower. New special education teachers achieved the highest mean scores for both willingness and preparedness.

### **Inferential Statistics**

Research Question 1 asked:

*Are there significant differences between the attitudes of general education teachers and special education teachers toward providing the necessary accommodations and modifications of the general education curriculum for students with special needs?*

Table 39 displays the comparisons between general and special educators and the results of Levene's test for equality of variances run for selected variables according to teacher type (general education or special education) taken as a group.

Table 39

*Differences in Attitudes Between General Education Teachers and Special Education Teachers Regarding Willingness*

<b>RQ 1</b>	<b>Accommodation/ modification</b>	<b>F</b>	<b>Sig.</b>	<b>t</b>	<b>df</b>	<b>Sig. (2- tailed)</b>	<b>Bonferro ni Correctio n</b>
W3	Graphic organizers	17.945	$p \leq .001$	5.031	188	.001	$p \leq .001$
W4	Oral testing	18.249	$p \leq .001$	3.762	70.753	.001	$p \leq .001$
W6	Grading adaptations	12.582	$p \leq .001$	5.087	55.060	.001	$p \leq .001$
W9	Alternative assignments	16.462	$p \leq .001$	3.633	55.461	.001	$p \leq .001$
W11	Fewer assignments	23.808	$p \leq .001$	1.888	28.436	.069	$p \leq .001$
W13	Vary instruction rate	18.295	$p \leq .001$	4.177	55.487	.001	$p \leq .001$
W16	Drill or practice	5.495	$p \leq .020$	1.427	31.662	.163	$p \leq .05$
<b>W1 8</b>	Organizational strategies and supports	16.167	$p \leq .001$	3.609	72.102	.001	$p \leq .001$
<b>W1 9</b>	Simplify text materials	14.319	$p \leq .001$	3.414	50.060	.001	$p \leq .001$
<b>W2 7</b>	Word processors	13.710	$p \leq .001$	2.780	53.607	.007	$p \leq .001$
<b>W2 8</b>	Calculators or math facts	17.652	$p \leq .001$	4.212	86.052	.001	$p \leq .001$

A review of Table 39 reveals that teacher type was significant at the .05 level with 11 of the 28 variables ( $t$  [degrees of freedom] =  $t$ -score,  $p \leq .001$  or  $p \leq .05$ ). The number of variables in this single analysis increased the possibility of Type 1 error; therefore, a Bonferroni correction was performed (multiplying the levels of significance by the number of variables). As a result, it

appeared that general education teachers as a group were slightly less willing to make accommodations and modifications than special education teachers taken as a group.

RQ 1.1 asked, *Are there significant differences in attitude between new special education teachers and veteran special education teachers toward providing the necessary accommodations and modifications of the general education curriculum for students with special needs?*

Using Levene's test for equality of variances initially demonstrated significance for three variables. However, a Bonferroni correction failed to show any significant differences between new and veteran special education teachers at the .05 level. Table 40 lists differences between new special education and veteran special education teachers.

Table 40

*Differences Between New Special Education and Veteran Special Education Teachers Regarding Willingness*

<b>RQ1.1</b>	<b>Accommodation/Modification</b>	<b>F</b>	<b>Sig.</b>	<b>T</b>	<b>df</b>	<b>Sig. (2- tailed)</b>	<b>Bonferroni Correction</b>
<b>W2</b>	Extended time	4.426	.045	-.956	6.523	.373	1.344
<b>W5</b>	Direct teaching	5.582	.028	1.725	16.000	.104	.784
<b>W19</b>	Simplify materials	5.582	.028	1.725	16.000	.104	.784

RQ 1.2 asked: *Are there significant differences in attitude between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

Levene's test for equality of variance found a significant difference in only one variable, "use cooperative learning." However, the use of a Bonferroni correction to account for the possibility of Type 1 error caused the significance of the difference to fail to meet the .05 level.

Table 41 shows differences in attitudes between new general and new special education teachers.

Table 41

*Differences in Attitudes Between New General Education and Veteran General Education Teachers*

*Regarding Willingness*

<b>RQ1.2</b>	<b>Accommodation/ Modification</b>	<b>F</b>	<b>Sig.</b>	<b>T</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Bonferroni Correction</b>
<b>W1</b>	Cooperative learning	10.259	.002	1.619	108.317	.108	.056

RQ 1.3 asked: *Are there significant differences in attitude between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

Significant differences were found in only three of the items using Levene's test for equality of variance. However, the use of a Bonferroni correction to account for the possibility of Type 1 error caused the significance of the difference to fail at the .05 level. The results are found in Table 42.

Table 42

*Differences in Attitudes Between New General Education and*

*New Special Education Teachers Regarding Willingness*

<b>RQ1.3</b>	<b>Accommodation/ Modification</b>	<b>F</b>	<b>Sig.</b>	<b>T</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Bonferroni Correction</b>
<b>W18</b>	Organizational strategies	11.032	.002	-3.611	38.000	.001	.056
<b>W19</b>	Simplify text	11.058	.002	-4.434	38.000	.001	.056
<b>W22</b>	Break up tasks	10.844	.002	-3.224	37.000	.003	.056

RQ 1.4 asked: *Are there significant differences in attitude between veteran general education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

At the .05 level, the results of both Levene's test for equality of variances and a Bonferroni correction for selected variables according to teacher type (veteran general education or veteran special education teacher) showed significant differences in teachers' willingness to make accommodations and modifications on eight variables. Table 43 shows the eight variables.

Table 43

*Differences in Attitudes Between Veteran Special Education and Veteran General Education Teachers Regarding Willingness*

<b>RQ1.4</b>	<b>Accommodation/ Modification</b>	<b>Sig.</b>	<b>F</b>	<b>T</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Bonferroni Correction</b>
<b>W3</b>	Graphic organizers	$p \leq .001$	14.878	4.600	125.000	.001	.001
<b>W4</b>	Oral testing	$p \leq .001$	17.306	3.770	62.406	.001	.001
<b>W6</b>	Grading adaptations	$p \leq .001$	11.040	5.062	45.621	.001	.028
<b>W9</b>	Alternative assignments	$p \leq .001$	11.699	3.096	41.723	.003	.028
<b>W11</b>	Fewer assignments	$p \leq .001$	34.149	2.334	23.313	.029	.001
<b>W13</b>	Varied instruction rate	$p \leq .001$	13.149	3.507	40.465	.001	.001
<b>W27</b>	Word processors	$p \leq .001$	13.472	2.796	44.557	.008	.001
<b>W28</b>	Calculators	$p \leq .001$	13.431	3.945	70.423	.001	.001

Regarding willingness, significant differences emerged primarily between veteran special education teachers and veteran general special education teachers on the following variables: “using graphic organizers,” “providing oral testing,” “make grading adaptations,” “providing alternative assignments,” “providing fewer assignments,” “varying the rate of instruction,” and “allowing calculators or math facts sheets.” Three other variables were significant, “providing additional drill and practice,” “simplifying text,” and “providing organizational supports.” No

significant differences were noted in educators' willingness for three of the ancillary research questions to RQ1 (RQ1.1, RQ1.2, and RQ1.3).

Research Question 2 asked:

*Are there significant differences about the perception of preparedness between general education teachers and special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

The results of both Levene's test for equality of variances and a Bonferroni correction for selected variables according to teacher type (general education or special education teacher) showed significant differences in the teachers' perception of preparedness for teachers to make accommodations and modifications for five variables. Table 44 shows those variables.

Table 44

*Differences in Attitudes Between Special Education and General Education Teachers Regarding Preparedness*

<b>RQ2</b>	<b>Accommodation/ Modification</b>	<b>F</b>	<b>Sig.</b>	<b>T</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Bonferroni Correction</b>
<b>P2</b>	Extended time	29.810	$p \leq .001$	4.943	110.698	.001	.001
<b>P4</b>	Oral testing	31.431	$p \leq .001$	6.184	151.276	.001	.001
<b>P16</b>	Drill or practice	17.119	$p \leq .001$	3.809	38.795	.001	.001
<b>P17</b>	Assignment length	31.295	$p \leq .001$	5.978	85.704	.001	.001
<b>P28</b>	Calculators	29.005	$p \leq .001$	6.151	159.093	.001	.001

*RQ 2.1: Are there significant differences about the perception of preparedness between new special education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

As seen in Table 45, at the .05 level the results of both Levene's test for equality of variances and a Bonferroni correction for selected variables according to teacher type (veteran

general education or veteran special education teacher) showed significant differences in teachers' willingness to make accommodations and modifications only for the variable "allow students to use calculator or math facts sheet." As discussed previously, this is a puzzling finding. However, as the mean scores of new special educators (4.83) and the mean scores for veteran special educators (4.88) are very close, this is probably not significant in reality. Also low the number of participants in this group (23) makes any findings suspect.

Table 45

*Differences in Attitudes Between New Special Education and Veteran Special Education Teachers Regarding Preparedness*

<b>RQ2.1</b>	<b>Accommodation/ Modification</b>	<b>F</b>	<b>Sig.</b>	<b>t</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Bonferroni Correction</b>
<b>P28</b>	Calculators	19.402	$p \leq .001$	-1.000	5.00	.363	.001

RQ 2.2: *Are there significant differences about the perception of preparedness between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

No significant differences emerged between the two groups (new vs. veteran teachers) using either Levene's test for equality of variances or a Bonferroni correction.

RQ 2.3 asked: *Are there significant differences about the perception of preparedness between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*



The results of both Levene's test for equality of variances and a Bonferroni correction for selected variables according to teacher type (new general education or new special education teacher) showed significant differences in teachers' preparedness to make accommodations and modifications on three variables.

Table 46

*Differences in Attitudes Between New General Education and  
New Special Education Teachers Regarding Preparedness*

<b>RQ2.3</b>	<b>Accommodation/ Modification</b>	<b>F</b>	<b>Sig.</b>	<b>T</b>	<b>df</b>	<b>Sig. (2- tailed)</b>	<b>Bonferroni Correction</b>
<b>P2</b>	Extended time	15.872	$p \leq .001$	-4.293	38.000	.001	.001
<b>P4</b>	Oral testing	15.040	$p \leq .001$	-4.447	38.000	.001	.001
<b>P21</b>	Dictated answers	13.256	$p \leq .001$	-5.408	38.000	.028	.028

RQ 2.4 asked: *Are there significant differences about the perception of preparedness between veteran general education teachers and veteran special education teachers toward making accommodations and modifications of the general education curriculum for students with special needs?*

The results of both Levene's test for equality of variances and a Bonferroni correction for selected variables according to teacher type (veteran general education or veteran special education teacher) showed significant differences in teachers' willingness to make accommodations and modifications for four variables. Table 47 lists those variables.

Table 47

*Differences in Attitudes Between Veteran General**Education and Veteran Special Education Teachers Regarding Preparedness*

<b>RQ2.4</b>	<b>Accommodation/ Modification</b>	<b><i>F</i></b>	<b><i>Sig.</i></b>	<b><i>T</i></b>	<b><i>df</i></b>	<b><i>Sig.</i> (2- tailed)</b>	<b>Bonferroni Correction</b>
<b>P2</b>	Extended time	14.419	$p \leq .001$	3.217	55.799	.002	.001
<b>P4</b>	Oral testing	17.998	$p \leq .001$	4.527	87.473	.001	.001
<b>P17</b>	Adjust assignment length	24.660	$p \leq .001$	5.267	86.523	.001	.001
<b>P28</b>	Calculators	27.214	$p \leq .001$	6.455	109.000	.001	.001

Significant differences in perceptions of preparedness were found on variables for RQ2 and all but one of the ancillary questions (2.2, new and veteran general education teacher). Statistical differences in preparedness to use calculators were found between general and special education teachers (RQ2.0), new and veteran special education teachers (RQ2.1), new general and special education teachers, and veteran general and special education teachers. Between both general and special educators (RQ2) and between veteran general and special educators (RQ2.4) significant differences were identified for extended time, oral testing, and adjusting the length of assignments. Significant differences were also revealed on RQ2.2 (veteran general and special education teachers for allowing students to dictate answers. Finally, significant differences were found between general and special education teachers in terms of providing extra drill and practice for students.

**Analysis of the Data**

Descriptive, correlational, and inferential statistics were used to determine if differences existed between general and special education teachers with regard to their perceptions of their

willingness to provide – and preparedness for providing – accommodations and modifications, as well as the relationship to these perceptions of selected demographic and descriptive characteristics of the teachers, their students, and the educational setting and support for inclusion. An alpha level of .05 was used for all statistical tests.

## **Summary**

Key findings of this study tend to support earlier studies indicating that teachers are willing to make accommodations and modifications for their students with special needs. The study also seems to support Boulton's (2003) findings that type of accommodation or modification is not important to teachers when deciding whether they are willing to implement accommodations and modifications. No significant differences between new and veteran general education teachers in either their willingness or preparedness to implement accommodations and modifications for students with special needs. Further, no significant differences were found between new and veteran special education teachers in their willingness and only one difference in their preparedness (allow students to use calculators) to accommodate or modify the curriculum for students with special needs. Between new general and special educators, the only significant differences were their preparedness to allow students to have extended time, dictate answers, or use other oral testing methods.

## **Chapter 5**

### **Discussion of the Findings**

This study examined the relationship between general and special educators' perceptions of their preparedness for and willingness to make accommodations and modifications for students with special needs who are included in the general education classroom. The previous chapter presented the findings in detail. A summary of the significant findings as they relate to existing literature is presented in this chapter. Also included is a discussion of the limitations of the study, implications of the findings, and recommendations for further research.

Two research questions formed the basis for the hypothesis of this study. Data analysis based on descriptive and inferential procedures revealed few statistically significant results. However, an examination of the salient descriptive findings contributes to an explanation of the outcomes and addresses both implications for practice and implications for future research. The research questions focused on willingness and preparedness to make accommodations and modifications to the curriculum for students with special needs by teacher type (special education or general education) and years of experience (new or veteran teacher status). The sample consisted of 169 general education teachers, 23 special education teachers, 145 veteran teachers, and 45 new teachers.

In an attempt to better understand teachers' attitudes concerning their preparedness for and willingness to make accommodations and modifications for students with disabilities, demographic data were collected, including highest degree, route to certification, years of experience, and training for making accommodations and modifications. This information showed that the sample was comprised predominantly of experienced, female, certified teachers.

## Research Questions

**Research Question 1:** *Are there significant differences between the attitudes of general education teachers and special education teachers toward providing the necessary accommodations and modifications of the curriculum? Are there significant differences in attitudes between new and veteran teachers toward providing accommodations and modifications of the curriculum?*

The rationale behind this question was to compare general and special educators for the identification of possible relationships. The source of these data was the entire sample ( $N = 192$ ). In general, participants, both special and general education teachers, were willing to make most accommodations and modifications. This finding is not surprising, as most previous studies have found teachers willing to make accommodations, despite feeling somewhat unprepared to do so (Leyser, 2010).

The results of Levene's tests for equalities of variances and a Bonferroni correction revealed 11 variables that indicated significant differences between special and general education teachers at the .05 alpha level; in fact, most were significant at the .01 level. The differences were only noted between the willingness of veteran general education teachers and veteran special education teachers. The variables were the provision of graphic organizers, oral testing, grading adaptations, alternative assignments, fewer assignments, varied rate of instruction, additional drill and practice, organizational strategies and supports, simplified text, word processors, and calculators, or math fact sheets. It was not unexpected to find that the means of special education teachers' responses were slightly higher overall than the means of general education teachers. However, it was somewhat surprising to discover that veteran general education teachers gave a very low rating regarding the use of calculators or math facts sheets.

Both are common accommodations and are specifically listed on the accommodations page of the Louisiana IEP. This finding is especially puzzling, given that these accommodations do not require a commitment of time on the teacher's part. In other words, allowing a special education student to use a calculator is much less difficult than creating a unique lesson plan.

Conversely, special educators as a group ranked the use of calculators and math facts sheets among the accommodations they were most willing to make. In my own experience, I have heard teachers express concern over students' dependence on calculators and math facts sheets; however, special education teachers pointed out that some students are able to perform more complex problems using calculators than with paper and pencil. This is an area that will need further investigation.

**Research Question 1.1:** *Are there significant differences in attitude between new special education teachers and veteran special education teachers toward providing the necessary accommodations and modifications of the general education curriculum for students with special needs?*

Neither the Levene's test for equality of variances nor a Bonferroni correction revealed any significant differences between new and veteran special education teachers at the .05 level. Three variables (extended time, direct teaching, and simplify materials) initially demonstrated significance; however, this was not sustained at the alpha level when a Bonferroni correction was performed. Six new special education teachers gave direct teaching a score of "definitely willing." Veteran special education teachers gave direct teaching a slightly lower mean score of 4.76; this is still a respectable, "probably willing." Conversely, the new special education teachers gave their lowest score to their perception of preparedness for direct teaching (3.83 – tied with "provide alternative forms of books").

This finding appears to have profound implications for practice and future teacher training. Direct teaching and simplification of materials both require additional planning for implementation, which may explain the differences in the mean scores of veteran (4.79) vs. new special education (5.00) teachers. Veteran special education teachers (4.88) were slightly more willing to use the extended time as a modification than new special education teachers (4.67). This homogeneity is likely a result of similar training. Also, because this analysis involved a subsample of only 23 participants, any results would be subject to scrutiny.

**Research Question 1.2:** *Are there significant differences in attitude between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

Levene's test for equality of variance found a significant difference in only one variable, "use of cooperative learning." However, the use of a Bonferroni correction to account for the possibility of Type 1 error resulted in a reduction of the significance of the difference, thereby failing to meet the .05 level. The mean scores for "cooperative learning" ranged from 4.87 for veteran general education teachers to 4.97 for new general education teachers. These scores are strongly in the "probably willing" end of the spectrum. Planning for cooperative learning can be intensive, so the fact that all groups surveyed for this study gave "probably willing" scores is a somewhat pleasant surprise. Further investigation may be warranted to discover if there are differences in the definition of cooperative learning among educators.

**Research Question 1.3:** *Are there significant differences in attitude between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

No significant differences were found between the willingness of new special education teachers and new general education teachers to make accommodations and modifications for students in the general classroom. This lack of significance may be a result of recent changes in teacher preparation programs, many of which now include special education information embedded within general education training programs. However, challenges may exist in the way that these programs of study incorporate learning about students with special needs. For example, one teacher who responded to an open-ended question made reference to classes s/he attended within a traditional college setting. S/he wrote, “The way the role of a special ed. (sic) teacher is portrayed in general-ed. classes, it makes special ed. teachers sound like paraprofessionals - someone to help kids individually or in small groups but not come up with their own lessons or ideas. I think this portrayal really minimizes the special educator’s role as an instructor.” This teacher’s point of view, if not an isolated case, may have implications for future practice.

**Research Question 1.4:** *Are there significant differences in attitude between veteran general education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

Selected variables according to teacher type (veteran general education or veteran special education teacher) revealed significant differences in the willingness of teachers to make accommodations and modifications on eight variables. These included the use of graphic organizers, oral testing, grading adaptations, alternative assignments, fewer assignments, varied rates of instruction, the use of word processors, and the use of calculators or math facts sheets. These results were detailed above.



**Research Question 2:** *Are there significant differences between the attitudes of general education teachers and special education teachers toward providing the necessary accommodations and modifications of the curriculum? Are there significant differences in attitudes between new and veteran teachers toward providing accommodations and modifications of the curriculum?*

The rationale for this question was to compare new teachers (those with five years or less experience) and veteran teachers (those with six or more years or less) for the identification of possible relationships. The source of these data was the entire sample ( $N = 192$ ). As with previous studies (Jung, 2007; Sze, 2009) of teachers' attitudes toward accommodation and modification, significant differences between new and veteran teachers were found on the variables of extended time, oral testing, additional drill and practice, as well as adjusting the length of assignments. These modifications cross several genres and require different skills from teachers. Three of the modifications (extended time, oral testing, and adjusting the length of the assignment) do not appear to require extensive advance preparation. They may, however, be difficult for classroom teachers to include in already-tight schedules.

There are many ways of providing additional drill and practice, from flashcards and worksheets to computer programs. Some approaches require more planning than others. Teachers responding to the open-ended question expressed the desire for materials that could be used for differentiation. Perhaps one objection to providing additional drill and practice is the need for more readily available materials. Another possibility is that a lack of clearly defined roles between general and special educators fails to identify whose responsibility it is to create and implement modifications and accommodations for students with special needs. This, in turn, may create tension between special and general education teachers in inclusion settings. One

respondent complained that the general education teacher assumed that the special education teacher was inferior to the inclusion teacher and used the special education teacher as an aide.

**Research Question 2.1:** *Are there significant differences about the perception of preparedness between new special education teachers and veteran special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

Comparisons of the preparedness of new and veteran special education teachers showed significant differences only for the variable “allow students to use calculator or math facts sheet.” This was surprising, because the use of a calculator or math facts sheet has in my experience been a fairly common and easily implemented accommodation, even though some teachers frown upon students’ dependence on calculators.

**Research Question 2.2:** *Are there significant differences about the perception of preparedness between new general education teachers and veteran general education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

There were no significant differences between the two groups, using either Levene’s test for equality of variances or a Bonferroni correction. I found this result surprising, because my own biases, based upon my own experience, led me to believe that veteran teachers would have indicated that they lacked the training to address students with special needs in their classrooms. General education teachers who have recently completed a program of study have possibly been exposed to a curriculum that includes components related to special education students. Perhaps the veteran teachers’ sense of preparedness may be a consequence of their confidence, gained over years of teaching, though this last comment is speculative.

**Research Question 2.3:** *Are there significant differences about the perception of preparedness between new general education teachers and new special education teachers toward providing accommodations and modifications of the general education curriculum for students with special needs?*

The results of both Levene's test for equality of variances and a Bonferroni correction for selected variables according to teacher status (new general education teacher or new special education teacher) showed significant differences in the preparedness of teachers to make accommodations and modifications on three variables extended time, oral testing and allowing students to dictate answers. All of these variables are primarily accommodations related to time. Therefore, an assumption may be that new teachers have difficulty finding time to implement these particular accommodations. There is definitely a great deal of empirical data regarding harried, overwhelmed novice teachers (Borrero, 2009; Reig, Paquette, & Chen, 2007 p. 211).

**Research Question 2.4:** *Are there significant differences about the perception of preparedness between veteran general education teachers and veteran special education teachers toward making accommodations and modifications of the general education curriculum for students with special needs?*

The results of both Levene's test for equality of variances and a Bonferroni correction for selected variables according to teacher type (veteran general education or veteran special education teacher) showed significant differences in the preparedness of teachers to make accommodations and modifications for four variables: extended time, oral testing, adjusting the length of assignments, and calculators or math facts sheets. All of these accommodations have been discussed previously. Oral testing and extended time require teachers to find time to implement them. Teachers may also object to changing assignments. This variable referred

specifically to changing the length of the assignments, so it also appears to be a time-related variable. Again, the low mean-score by general education teachers for the use of calculators or math facts sheets is a surprise that warrants further investigation.

### **Open-Ended Response**

In question 23 teachers were asked an open-ended question, “What specific areas, if any, should be addressed in college curricula or additional district level training that would facilitate the inclusion of students with special needs in the general education classroom?” The responses of the 75 teachers who answered this question seemed to focus on several themes including a desire for training that specifically addressed accommodations and modifications.

### **Significant Findings of the Study**

The purpose of this study was to determine teachers’ willingness to make accommodations and modifications for students with special needs in the general education classroom and their perception of their preparedness for doing so. All participating teachers reported high levels of willingness and preparedness to make the accommodations or modifications posed in the modified TAUS. Not surprisingly, teachers perceived themselves as more willing than prepared for making accommodations. Agreeing that modifications and accommodations are useful and necessary for students is probably easier said than done. Educators may lack the time, materials and knowledge needed to actually implement such changes.

Teachers overall were more willing to use manipulatives and least willing to assign fewer assignments. However, some strategies were considered more acceptable by special education teachers; among those were providing alternate assignments, art as part of an assignment, and grade adaptations. A majority of teachers reported making accommodations and modifications on a regular basis.

## **Revisiting the Literature**

Regarding the success of students with special needs in general education classes, this study addressed two research questions: (a) teachers' attitudes toward providing accommodations and modifications needed for students with special needs in general education classes, and (b) the relationship of selected demographic and descriptive variables to teachers' attitudes toward inclusion. According to Henning and Mitchell (2002), "Teachers' perceptions about exceptional students may be the factor with greatest effect on student success" (p. 28).

E. L. Schoettle, Ph.D., (personal communication, August 10, 2011) warned that the "curriculum is an inch deep and a mile wide," reflecting the increasing breadth of a curriculum, requiring introduction of a plethora of skills without ensuring that students truly master any skill. Thus, the student with special needs who is included in the general education classroom is now required to master the general curriculum based on grade-level expectations, statements of what all students should know or be able to do by the end of each grade, pre-K through grade 12. The teacher must provide modifications and accommodations appropriate to each student for instruction as well as for testing. Hoover and Patton (2008) stated,

The contemporary trend in education for all learners, including those with disabilities, is education within a multi-layered system using the learner's response to instruction as the basis for making instructional and diagnostic decisions. The nature of special education has changed appreciably over the past several decades. As a result, the role of special educators needs to be examined and further developed to provide the most effective education for all learners at-risk and those with high and low incidence disabilities. (p. 195)

In a recent study, Kosko and Wilkins (2009) concluded that the professional development received by general educators is not adequately preparing them to properly implement inclusion-based practices. Whole-group instruction is still the method of choice for many general education teachers, and even when a special education teacher is present, instruction is not significantly differentiated for the student with special needs.

Several potential problems may impede inclusive education in general. One barrier is the need for basic literacy in the areas of reading, writing, science, and computation. This creates rigorous demands for students, especially in secondary education, where there is less frequent contact between the student and the special education teacher (Michael & Trezek, 2006). Studies by Sze (2009) and Cawley et al. (2003) found that the higher the grade level, the less likely teachers are to make needed modification or changes to curriculum.

Some teachers in the present study expressed concern in their open-ended responses about their lack of ability to meet the needs of students who are functioning significantly below grade level in inclusion classes. Lee et al. (2010) determined that standards-based activities without curriculum modifications did not necessarily result in better academic performance; however, students with disabilities engaged in curricular activities linked to standards but with curriculum modifications were less likely to engage in off-task behavior. They also noted that the presence of curriculum modifications resulted in fewer “management behaviors” (p. 229) by teachers. In the absence of effective adaptations and modifications, Greenwood (1998) insisted that it may not be appropriate or possible to serve some students with learning disabilities in the general education classroom.

Research on teachers’ attitudes toward providing modifications and accommodations for students with special needs in general education classes has been limited primarily to studies of

inclusion. Existing research (Worrell, 2008; Jung, 2007) does show, however, that teachers who feel negatively toward students with disabilities or who are not trained in the appropriate strategies are less likely to be successful. Boulton (2003) noted that:

While a review of the literature suggests that many of the strategies are frequently used in elementary classrooms (e.g., cooperative learning, graphic organizers, teaching problem-solving strategies, differentiated instruction) it is surprising that other strategies (e.g. grading adaptations, smaller units of assignments alternative forms of textbooks and allowing students to draw as part of written assignments) were considered acceptable for all students ... The results of the current study suggest that the amount of time required to implement an accommodation does not appear to affect the acceptability ... Teachers in this study indicated that such accommodations as using hands-on materials, using peer tutoring and providing additional drill and practice were acceptable ... The only accommodation that teachers considered unacceptable was allowing students to use word processors as part of written assignments. (p. 83)

Most teachers in the current study did not rate the use of word processors as unacceptable, but it was rated fairly low by veteran general education teachers. This may be a result of changing and increased availability of technology. Each classroom in the participating district has a minimum of six computers with word processing software. Each school also has computer labs and software with reading and word prediction.

The findings of the present study are similar to those of Boulton (2003), who found that the amount of time needed to implement modifications and accommodations, specifically, peer tutoring, providing additional drill and practice, and the use of hands-on or manipulative materials did not seem to negatively affect teachers' willingness to use them. At the same time,

some seemingly easy to implement strategies such as grading adaptations, assigning fewer assignments, and varying the length of assignments were rated surprisingly low. Future studies may benefit from the inclusion of qualitative methods to uncover the reasons behind these and other oddities.

### ***The Current Study***

This study indicates that teachers in the selected district are willing and prepared to make accommodations and modifications in their lesson plans and presentations to facilitate the learning of students with disabilities in general education classes. The results show that the attitudes of educators from the selected district fall within the range of “probably willing” to “definitely willing,” and their perceptions of preparedness fall within the range of “mostly prepared” to “100% prepared.” Statistical analysis revealed few significant differences in attitudes of willingness between special education and general education teachers, although special education teachers perceived themselves as slightly more prepared to make accommodations and modifications to the general curriculum for the student with special needs included in the general education classroom. This contrast with previous studies suggests that teacher training for making accommodations and modifications has improved in recent years. As Boulton (2003) found, the type of accommodation or modification did not seem to matter to teachers’ ratings.

Several demographic items had large numbers of non-respondents. These included whether teachers were teaching outside of their area of certification, the amount and type of training for making accommodations and modifications they had received, and the amount of support for inclusion general education teachers received. The design of the demographic questions on the instrument may be partially responsible for this. In particular, teachers who



indicated that they had valid certification may not have seen the need to answer the question about teaching outside of their area of certification. The relatively large number of demographic questions (17) may also have been problematic for some respondents.

### **The Conceptual Framework**

The theoretical/conceptual framework of this study was multifaceted, embracing both change theory and Vygotsky's theory of socio-cultural influence on cognitive development, in which he theorized that a child must reach a certain level of cultural development in order for learning to occur, as learning was dependent on social interaction (Moll, L., 1990, p.9). Because societal differences have accelerated as computer technology and the Internet have transformed the world, the student of today will have to compete and collaborate in a global economy with people of many cultures and languages, using skill sets that are still undetermined. To that end, tomorrow's workers must possess the knowledge and ability to think critically and creatively to be able to solve the problems that they will confront. Change in both curriculum and teaching methods is urgently needed as schools struggle to prepare students for the challenges of the 21 century.

Fullan (2001) identified several types of educational change: teacher change, curricular change, innovation, reform, and standards-based reform (pp.60-72). One possibility for change is standards-based district-wide reform initiatives. This theory is based on producing more and better individuals as the route to change the system, rather than the culture. Fullan disagreed, stating, "The notion that external ideas alone will result in change in the classroom and school is deeply flawed as a theory of action" (2007a, p. 35). This is not to say that standards-based reform theories have no merit, but that they are incomplete and ignore school or district culture.

A second possibility for change is that of developing professional learning communities that focus on the school and involve teachers and learners working together to improve learning conditions. Communities of change help teachers constantly search for and promote new ways of making improvements. However, according to Fullan (pp. 6-7), although this theory is quite good, there are three concerns about its efficacy. These include (a) superficiality, or not going deeply enough into learning; (b) treating communities of change as the “latest innovation” in educational change; and (c) being miscast as changing the cultures of individual schools rather than creating a new school district culture.

A third possibility is a “qualifications” framework that focuses on the development and retention of quality leaders. This includes transforming teacher compensation, reinventing teacher preparation, overhauling licensing and certification, and strengthening leadership and support. Fullan (2001) noted that there is no single way to create change. He mapped the change process centered on outcomes categorized as “student learning” or “organizational capacity” (Fullan, 2006, pp. 50-51)

Conversely, as stated by Udvari-Solnar and Thousand (1996), Vygotsky argued that cognition develops in the context of social interaction and then becomes internalized by the individual; thus learning is a group activity, and collaboration with others is necessary for cognitive growth. Vygotsky explored the nature of learning, the intricacies of interaction of human action, and socio-cultural influence on cognitive development. His ideas include the concepts of the zone of proximal development (ZPD), which refers to the optimal level of difficulty where a learning task cannot be achieved independently, but can be achieved with support, and the socio-cultural view of cognition.

According to Vygotsky (Robbins, 2001, pp.68-69), in order to learn, the child must have support. A framework of multiple scaffolds, or temporary supports, allows each student to stay within his/her ZPD. The ZPD should constantly change as a student learns; therefore, curricular materials need to be highly adjustable (O'Neill, 2000). Scaffolding is an important aspect of universal design (UD), especially in the areas of reading, organizing, and writing. Some readily accessible computer scaffolds for students include software with word prediction for writing, scanners linked to optical character recognition, speech synthesis which can read printed materials, and voice recognition software that can convert speech into text. Programs such as these allow students with disabilities to stay in their ZPD, demonstrating knowledge in spite of their disabilities.

Together neuroscience, ZPD, scaffolding, and universal design in areas other than education build a case for universally designed curricular materials as a means of access to the general curriculum for all students (Nolet & McLaughlin, 2000, pp 89-90). In a recent study of theoretical frameworks, Pressick-Kilborn, Sainsbury, and Walker (2005) found that if the “underlying assumption is that learning and motivation are socially and culturally situated, the design of research studies needs to encompass participation in authentic and purposeful activities” (p. 25). Change theorist Peter Senge (2001) maintained that change, then, becomes an imperative. The very nature of classroom instruction must be revolutionized from a whole-group approach of passive learning in which the teacher lectures and students listen or rely on text to complete outlines and worksheets, to a student-centered problem-based model in which the student takes an active role in learning. Teachers must accept and internalize the need for change in the way students with special needs are taught in the general education classroom. Also, significant administrative support is essential in order for the general education teacher and

special education teacher to have time plan and prepare appropriate accommodations and modifications for the successful inclusion of students with special needs. Only in this way will future students be able to assimilate the vast reserve of rapidly changing information.

### **Limitations of the Study**

Lack of generalizability is one limitation of this study. Although sample data may be generalized to the population of general and special education teachers in one suburban school district in the southeastern United States, the results may not be generalized beyond that population. That is, the results can only be generalized to districts having populations with similar traits. This district was chosen based on school enrollment, students with disabilities, and school policy endorsing inclusion. Another limitation is that the results were comparative and descriptive and did not provide a representation of cause-effect relationships. The return rate of this study was 57.1 %. The relatively small sample size for several of the groups, especially new special education teachers ( $n = 6$ ), is a further limitation of the study.

Another limitation of the study was that self-reporting was used to determine teachers' attitudes toward providing accommodations and modifications for students with special needs in general education classes. Although participants sometimes respond differently when they know they are being evaluated, self-report is often used in educational research (Stecher, 2006).

An additional limitation arose from the design, which allowed respondents to skip questions. The large number of people choosing not to answer questions concerning whether they were teaching outside their area of certification (51/ 26.6%), the level of support received by general education teachers (53/31.36%), and type of accommodations and modifications used by the respondents (55/ 28.64%) made some statistics suspect.

A further limitation involves the disproportionate number of teachers with more than five years of teaching experience who completed the survey (75.5%) compared with district statistics indicating that 70.9 % of teachers have less five years or less of teaching experience. The discrepancy between the years reported by the participants and data from the district is likely related to district policy regarding seniority post-Katrina. Teachers who did not return to the district before August, 2007 lost seniority. Further, it may also be related to participants' knowledge of the researcher. Teachers who taught for several years in the district were more likely to know the researcher and, subsequently, choose to participate in the study. This may also have affected the answers of some respondents, leading them to report higher than actual levels of willingness and preparedness.

### **Implications for Practice**

Seventy-five teachers responded to the open-ended question, "What specific areas if any should be addressed in college curricula or additional district level training that would facilitate the inclusion of students with special needs in the general education classroom?" Their responses tended to express the following needs:

- more assistance in the inclusion classroom from certified special education teachers,
- more planning between special education teachers and general education teachers,
- better defined roles for the special educator and general educator,
- training for working effectively with paraprofessionals,
- additional materials that address the curriculum at various levels,
- more information about special education and the evaluation or IEP process,

- ensuring that IEPs are followed and students are receiving their accommodations and modifications,
- concrete, practical examples of accommodations and modifications for behavioral issues as well as curricular support,
- instruction in classroom management,
- instruction in accommodations and modifications for gifted learners, and
- instruction in differentiation of materials and curriculum.

Several teachers expressed concern about the demands being placed on classroom teachers in light of high-stakes testing and value-added teacher evaluation laws. As one respondent stated, “If teachers are to be accountable based upon their test scores, regular ed. teachers will be inclined to avoid special ed. students. Therefore, it is imperative that the individual progress be tracked for students with special needs and not just a score.” This fear is addressed by Ravitch (2010b, p.7-8) where she states, “In hopes of winning federal dollars, many states have passed laws to base as much as 50% of teachers’ evaluation on test scores”... that will result in “teaching to the test” and an over-emphasis on the basics, rather than on educating the child in arts, history, foreign language and even physical education.

Alternatively, two teachers were frustrated by the apparent lack of respect shown to special education teachers. “Students and teachers alike seem to think I am just an overpaid aide, there to sharpen pencils and pass out papers.” Both of these sentiments seem to highlight the need for more collaboration between general and special educators in order to better serve students with and without special needs. It also speaks to the value placed on special education classes by some principals, who use special education aides and teachers in various non-

professional capacities (e.g. go-fer, discipline... “keeping the bad boys”), possibly an indication of the lack of training principals receive in special education.

The differences in attitude between new and veteran special education teachers toward direct teaching and simplification of materials appears to have profound implications for practice and future teacher training. Direct teaching and simplification of materials both require additional planning for implementation, which may explain the differences in the mean scores of veteran (4.79) vs. new special education (5.00) teachers. Veteran special education teachers (4.88) were slightly more willing to use the extended time as a modification than new special education teachers (4.67). This homogeneity is likely a result of similar training. Also, because this analysis involved a sub-sample of only 23 participants, any results would be subject to scrutiny.

### **Implications for Further Research**

A surprising finding of this study was the low rating for the accommodation “allow students to use a calculator or math facts sheet,” as this is a common and relatively unobtrusive accommodation. Research that includes more qualitative methods could be used to investigate why some accommodations are more acceptable than others. Contrary to the findings of this study, in my experience, modifications that involve substantial time are less likely to be implemented regularly. Future research might include observations of classroom practice to investigate the use of accommodations and modifications by teachers. Another consideration for future studies might be the inclusion, within the instrument, of some means to measure general education teachers’ perception of their ability overall or in other unique situations not involving special education.

Given the widespread use of paraprofessionals as the major, and sometimes only, support special education students receive in the general education classroom, there is a need to investigate the use of accommodations and modifications by paraprofessionals. Not surprisingly, several respondents expressed the desire to better understand the responsibilities, roles, and best practices for working with paraprofessionals.

One troublesome aspect of the study is that 70.8% of participants did not answer the question regarding training for accommodations and modifications. Further investigation of the amount and type of training teachers receive for preparing accommodations and modifications might prove useful. Of those who did respond to the question, less than 10% indicated they had no training. This may be an encouraging sign compared with earlier studies (Simmons, et al., 1998; Larrivee & Cook, 1999; Leyser, 2002) wherein lack of knowledge about how to make accommodations and modifications was a frequent concern among general educators. However, readers are cautioned not to make this assumption without further study because of the large number of non-respondents to this question. Furthermore, almost half (46.6%) of those responding to open-ended questions expressed the need for more training in order to facilitate inclusion.

An investigation of the differences and similarities in perceptions of willingness and preparedness of educators across grade levels (e.g., elementary, middle, and high school) toward making accommodations and modifications is also in order. Previous studies (Cawley, et al., 2003) have found that that higher the grade level, the less likely teachers are to make accommodations.

Vaughn & Klingner (1998) asked students for their thoughts about modifications and accommodations. They found that students with special needs, in general, preferred being treated



like their classmates to having accommodations and modifications made for them. There have been few studies of student opinions in the intervening decades; therefore, further research is needed on the attitudes of students with and without disabilities toward accommodations and modifications.

Other areas of possible future research include the implications of data-driven instruction and culture on the accommodations and modifications made for students with special needs. In the participating district, a strong push has been made to use data-driven instruction for all students. Teachers in the district have created differentiated lessons and activities tied to each grade-level expectation and benchmark. Therefore if data indicate that a student needs further instruction, a teacher has easily accessible materials ready to be used. This emphasis has been especially helpful for special education students. Studies that compare the effectiveness of different interventions or types of data might be useful.

## **Summary**

This study examined differences in attitudes between general and special education teachers and new and veteran teachers toward making accommodations and modifications of the general education curriculum for students with special needs who are included in general education classrooms. As with previous studies on this subject, teachers reported that they are willing to make accommodations for students with disabilities who are included in the general education classroom. In contrast to previous studies, teachers' perceptions of their preparedness for making accommodations and modifications were fairly strong.

The long-term motto "vision, effort, success" perfectly describes the culture of the participating district. The employees have always prided themselves on "being a family." This became even more evident following the devastation and rebuilding after Hurricane Katrina.

When much of the area was uninhabitable and government assistance for reopening the schools was slow, the school district purchased trailers for employee housing, enabling schools to reopen in November 2005, many months before some of the neighboring districts. The district continues to pursue excellence, having attained some of the highest scores in the state on statewide achievement tests for the past two years. A qualitative study on the effects of culture on the willingness of teachers to implement accommodations and modifications is needed.

Empirical data from this study may be used in evaluating the self-reported use of various accommodations and modifications for students with disabilities and also provide valuable insight for teacher trainers about areas of concern to teachers currently in the classroom. Findings from this study contribute to both the theory and the practice of teaching students with disabilities in inclusive settings by investigating an area of instruction that continues to evolve.

All in all, it is students who suffer if needed accommodations are not provided regularly and with fidelity to the IEP.

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## **Appendices**



DEPARTMENT OF SPECIAL EDUCATION AND HABILITATIVE SERVICES

Ms. Doris Voitier  
St. Bernard Parish Public School System  
200 East St. Bernard Highway Chalmette, Louisiana 70043

April 12, 2011

Dear Ms Voitier:

My name is Ramona Williamson. I am currently the librarian at W. Smith Elementary School. From 1988-2005, I taught special education at C.F. Rowley Elementary School, and from 2006-2009, I taught third, fourth and fifth grade special education at Andrew Jackson Elementary School. This is my twenty-third year as a teacher in St. Bernard Parish.

As a Ph.D. candidate at the University of New Orleans I am requesting permission to conduct research in St. Bernard Parish Public Schools. I would be happy to meet with you to discuss my project. Dr. Mary Cronin is my Major Professor. Her phone number is 504-280-6609 and her e-mail is [MCronin@uno.edu](mailto:MCronin@uno.edu). My topic is ***"Teachers perceptions of their preparedness for and willingness to provide modifications and accommodations for students with disabilities in the general education classroom."*** Information gained through this study may identify target areas for college classes and in-service training thus leading to improved classroom instruction.

My research would consist of one on-line survey of about 65 questions. The survey could be taken in approximately 15 minutes during planning or after school so that it would not interfere with instructional time. Through an e-mail with an anonymous link all parish teachers would be asked to take the survey. Participation would be voluntary, although I would ask that teachers be encouraged to assist me by taking the survey. Responses will be anonymous because of the survey software used. No personally identifiable data will be collected. Paper copies of the survey will also be available for those who would prefer that method of response. All on-line results will be deleted at the end of the study and paper copies of the survey will be shredded.

I have enclosed a copy of my proposal, a copy of the e-mail letter that would be sent to teachers and information on the link to the web-site,

[http://neworleans.qualtrics.com/SE/?SID=SV\\_e8rGL5FDRZluqmE](http://neworleans.qualtrics.com/SE/?SID=SV_e8rGL5FDRZluqmE)

Thank you for your consideration, and I look forward to your response.

Sincerely,

Ramona D. Williamson, M.Ed.  
University of New Orleans  
246 Bicentennial Educational Center  
Lakefront Campus  
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New Orleans, Louisiana 70148

Mary Cronin, Ph.D.  
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DEPARTMENT OF SPECIAL EDUCATION AND HABILITATIVE SERVICES

Professional Personnel  
St. Bernard Parish Public Schools  
200 East St. Bernard Highway  
Chalmette, Louisiana 70043

April 28, 2011

Dear Teachers:

My name is Ramona Williamson. I am currently the librarian at W. Smith Elementary School. From 1988-2005, I taught special education at C.F. Rowley Elementary School and from 2006-2010, I taught third, fourth, and fifth grade Special Education at Andrew Jackson Elementary School. This is my twenty-third year teaching in St. Bernard Parish.

I am a Ph.D. candidate at the University of New Orleans. My dissertation topic is *"Perceptions of preparedness for and willingness to make accommodations and modifications of the general education curriculum for students with special needs included in the general education classroom: a comparative study of general and special education teachers."* Dr. Mary Cronin is my Major Professor.

Superintendent Doris Voitier has given me permission to conduct research for my dissertation in St. Bernard Parish Public Schools. Information gained through this study may allow us to improve classroom instruction.

My research consists of one on-line survey of 65 questions. The survey will take approximately 15 minutes during planning or after school so it will not interfere with instructional time. The survey instrument is anonymous and the software shields your identity from me or anyone else. No personally identifiable information will be collected. All on-line results will be deleted once I have completed my study. If you prefer, a paper version of the study will be available in the office of each school. Paper surveys will be shredded at the end of the study. All participation is voluntary and responses will be anonymous.

I am asking that all St. Bernard Parish teachers assist me by taking this survey as soon as possible. Clicking on this link will lead you to the survey.

[http://neworleans.qualtrics.com/SE/?SID=SV\\_e8rGL5FDRZluE](http://neworleans.qualtrics.com/SE/?SID=SV_e8rGL5FDRZluE)

If you have any questions or concerns, please do not hesitate to contact me. Thank you for your consideration, and I look forward to your response.

Sincerely,

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April 1, 2011

Bonnie S. Boulton, Ph. D.  
11007 Major Oaks Drive  
Baton Rouge, Louisiana 70815-5449

Dear Dr. Boulton:

This letter will confirm our recent telephone conversation.] I am completing a doctoral dissertation at the University of New Orleans entitled "Accommodation and curriculum modification for students with special needs: A study of teachers' attitudes." I would like your permission to use your instrument the "Teacher Acceptability and Use Scale (TAUS)" for my study with slight modifications.

[Boulton, B. (2003). *An examination of the relationship between the acceptability and reported use of accommodations for students with disabilities by general education teachers and teachers' sense of efficacy* (Unpublished doctoral dissertation) Louisiana State University, Baton Rouge.

The requested permission extends to any future revisions and editions of my dissertation, including nonexclusive world rights in all languages, and to the prospective publication of my dissertation by UMI Company. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that you own the copyright to the above-described material.

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me.

Thank you very much.

Sincerely,

Ramona D. Williamson, M. Ed.

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

*Bonnie S. Boulton, Ph.D.*

Bonnie S. Boulton, Ph. D.

Modified Teacher Acceptability and Use Scale



Q1 For each of the following accommodations/modifications used for students, rate your perception of how willing you are to implement these accommodations/modifications. Use the scale listed above each of the columns.

	NA (1)	Definitely not willing (2)	Probably not willing (3)	Don't know (4)	Probably willing (5)	Definitely willing (6)
use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allow students extended time for completing assignments (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use graphic organizers in lessons (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
administer tests orally to students (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use grading adaptations for students (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
assign alternative assignments or projects to students (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
break down assignments into multiple parts with feedback (e.g., independent work and homework assignments) (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 For each of the following accommodations/modifications used for students, rate your perception of how willing you are to implement these accommodations/modifications. Use the scale listed above each of the columns.

	NA (1)	Definitely not willing (2)	Probably not willing (3)	Don't know (4)	Probably willing (5)	Definitely willing (6)
assign fewer assignments (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use different levels of questions for students based on ability (e.g. lower level questions) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
vary the rate of instruction for students (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
highlight key information or concepts in text (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
adapt the format of tests (e.g., making tests less subjective) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
provide additional drill or practice based on student progress (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

pages) (7) provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks) (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self- correcting materials) (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
provide both oral and written directions (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q3 For each of the following accommodations/modifications used for students, rate your perception of how willing you are to implement these accommodations/modifications. Use the scale listed above each of the columns.

	NA (1)	Definitely not willing (2)	Probably not willing (3)	Don't know (4)	Probably willing (5)	Definitely willing (6)
allow students to dictate answers (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
break tasks or concepts into small units of learning (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
provide differentiated instruction based on individual student's needs (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use hands-on activities or manipulatives (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allow students to draw pictures/diagrams as part of written assignments (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allow students to use word processors for written assignments (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allow students to use calculators or math fact sheets (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 For each of the following accommodations/modifications used for students, rate your perception of how well you are prepared to implement these accommodations/modifications. Use the scale listed above each of the columns.

	NA (1)	Definitely not prepared (2)	Probably not prepared (3)	Somewhat prepared (4)	Mostly prepared (5)	100% prepared (6)
use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allow students extended time for completing assignments (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use graphic organizers in lessons (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
administer tests orally to students (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use grading adaptations for students (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
lessen environmental distractions (e.g., keep noise levels down, reduce the visual	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

stimuli in the classroom) (7)						
use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills (8)	○	○	○	○	○	○
assign alternative assignments or projects to students (9)	○	○	○	○	○	○
break down assignments into multiple parts with feedback (e.g., independent work and homework assignments) (10)	○	○	○	○	○	○



Q5 For each of the following accommodations/modifications used for students, rate your perception of how well you are prepared to implement these accommodations/modifications. Use the scale listed above each of the columns.

	NA (1)	Definitely not prepared (2)	Probably not prepared (3)	Somewhat prepared (4)	Mostly prepared (5)	100% prepared (6)
assign fewer assignments (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use different levels of questions for students based on ability (e.g., lower level questions) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
vary the rate of instruction for students (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
highlight key information or concepts in text (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
adapt the format of tests (e.g., making tests less subjective) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
provide additional drill or practice based on student progress (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

pages) (7) provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks) (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
simplify text material (e.g. reduce the complexity and length of units, provide graphic aids that summarize material, provide self- correcting materials) (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
provide both oral and written directions (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 For each of the following accommodations/modifications used for students, rate your perception of how well you are prepared to implement these accommodations/modifications. Use the scale listed above each of the columns.

	NA (1)	Definitely not prepared (2)	Probably not prepared (3)	Somewhat prepared (4)	Mostly prepared (5)	100% prepared (6)
allow students to dictate answers (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
break tasks or concepts into small units of learning (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
provide differentiated instruction based on individual student's needs (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
use hands-on activities or manipulatives (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allow students to draw pictures/diagrams as part of written assignments (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allow students to use word processors for written assignments (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
allow students to use calculators or math fact sheets (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 Sex

- ☐ Male (1)
- ☐ Female (2)

Q8 Are you currently a special education teacher or a general education teacher?

- ☐ special education teacher (1)
- ☐ general education teacher (2)
- ☐ other (3) \_\_\_\_\_

Q9 If you are a general education teacher who has special education students included in his/her class(es), what if any special education support do you receive?

- ☐ full-time special education co-teacher (1)
- ☐ part-time special education co-teacher (2)
- ☐ full-time special education paraprofessional (3)
- ☐ part-time special education paraprofessional (4)
- ☐ assistance in planning and creating accommodations and modifications (5)
- ☐ none (6)

Q10 If you are a special education teacher, what is your primary setting?

- ☐ Please select one (1)
- ☐ self-contained special education class (2)
- ☐ general education inclusion class (3)
- ☐ special education resource room (4)
- ☐ combination inclusion/ resource room (5)
- ☐ other (6)

Q11 How many years of teaching experience do you have?

- ☐ Please select one (2)
- ☐ less than 1 year (1)
- ☐ 1 year (3)
- ☐ 2 years (4)
- ☐ 3 years (5)
- ☐ 4 years (6)
- ☐ 5 years (7)
- ☐ 6 years (8)
- ☐ 7 years (9)
- ☐ 8 years (10)
- ☐ 9 years (11)
- ☐ 10 years (12)
- ☐ 11 years (13)
- ☐ 12 years (14)
- ☐ 13 years (15)
- ☐ 14 years (16)
- ☐ 15 years (17)
- ☐ more than 15 years (18)

Q12 What is the highest degree you have earned?

- ☐ Please select one (1)
- ☐ Bachelor's (2)
- ☐ Master's (3)
- ☐ Specialist (4)
- ☐ Doctorate (5)

Q13 Are you a certified teacher?

- ☐ Yes (1)
- ☐ No (2)

Q14 In what year did you receive your initial certification?

Q15 What was your route to initial certification?

- ☐ traditional 4 year college of education program (1)
- ☐ teacher practitioner program (2)
- ☐ alternative teacher certification (3)
- ☐ other (4) \_\_\_\_\_

Q16 What grade levels do you teach this year?

- ☐ Please select one (1)
- ☐ Pre-kindergarten (2)
- ☐ kindergarten (3)
- ☐ elementary (e.g., first - fifth) (4)
- ☐ middle school (e.g., sixth - eighth) (5)
- ☐ secondary (e.g., ninth - twelfth) (6)

Q17 In the past four years have you had formal coursework or professional development that specifically addressed strategies for providing accommodations or modifications? Please select all that apply.

- ☐ Yes, university class (1)
- ☐ Yes, professional development from the district (2)
- ☐ Yes, professional development from the state (3)
- ☐ No (4)

Q18 If yes how many university classes have you had in the past four years that specifically addressed strategies for providing accommodations/ modifications?

- ☐ 3 credit hours (1)
- ☐ 6 credit hours (2)
- ☐ 9 credit hours (3)
- ☐ 12 credit hours (4)
- ☐ more than 13 credit hours (5)

Q19 If yes, how much professional development have you had that specifically addressed strategies for providing accommodations/ modifications? Please select all that apply.

- ☐ 1/2 day workshop or less (1)
- ☐ one day workshop (2)
- ☐ 2 day workshop (3)
- ☐ year-long study group (e.g. Sun Center) (4)
- ☐ other (5) \_\_\_\_\_

Q20 In the past 2 years, have you taught students with any of the following disabilities (as identified through an individual multidisciplinary evaluation). Please select all that apply.

- ☐ no (1)
- ☐ autism spectrum disorders (2)
- ☐ deaf-blindness (3)
- ☐ developmental delay (4)
- ☐ emotional disturbance (5)
- ☐ hearing impairments (6)
- ☐ mental disability - mild degree of impairment (7)
- ☐ mental disability - profound degree of impairment (8)
- ☐ multiple disabilities (9)
- ☐ orthopedic impairment (10)
- ☐ other health impairment (11)
- ☐ specific learning disability (12)
- ☐ speech or language impairment (13)
- ☐ traumatic brain injury (14)
- ☐ visual impairment (15)
- ☐ gifted (16)
- ☐ talented (17)

Q21 In a typical week, how much time do you spend making accommodations/modifications?

- ☐ Please select one (1)
- ☐ less than 1 hour (2)
- ☐ 1-3 hours (3)
- ☐ 3 -6 hours (4)
- ☐ more than 6 hours (5)

Q22 Are the accommodations/ modifications that you make primarily curriculum related or testing related?

- ☐ primarily curriculum related (1)
- ☐ primarily testing related (2)
- ☐ about equally divided between curriculum and testing (3)

Q23 What specific areas, if any, do you think should be addressed in either college curricula or additional district level training that would facilitate the inclusion of students with special needs in the general education classroom

Q24 Comments

## Written Responses of Respondents on the Survey

Teachers were asked “What specific areas if any should be addressed in college curricula or additional district level training that would facilitate the inclusion of students with special needs in the general education classroom?” Seventy-five teachers responded. Their responses were:

- We need more ideas that will help us reach the children who struggle. I don't mind helping, I just don't really feel that I know what to do.
- More workshops on things that work with special students
- In-service training at the state or district level should provide concrete examples of accommodations and modifications that could be used in the classroom with some ease of facilitation. Colleges should provide more hands on experience at the local schools prior to graduation or student teaching. Get rid of Teach for America. These people are not prepared for the real classroom and are often detrimental to students with problems. I want to be Doctor for America or Lawyer for America with six weeks of intensive training and weekly updates and classes. Would you want me caring for you or representing you in a trial, if I were DFA or LFA? I don't think so!
- How to modify lessons, homework assignments, and test to fix each individual disability.
- I believe that a course should be taught specifically to address modifications of materials for all special needs students in the classroom.
- More information on various disabilities and how to address incorporating accommodations
- I think teaching specific classroom behavior strategies would be helpful. Doug Lemov has good stuff for group learning.



- Accommodating children with special needs in a regular ed classroom while teacher works with reg. ed students.
- Increased training to facilitate the instruction and inclusion of emotional behavior student needs.
- Many regular education teachers do not understand the need for modifications and state they are not trained nor do they have the time. I believe additional college classes and actual experience is desperately needed.
- I have learned a lot about accommodations/modifications but I feel that college courses or district level training could focus more on which specific types of accommodations/modifications work best for different groups of students. For example, which accommodations/modifications work best for gifted and talented students and which accommodations/modifications work best for students with autism.
- iLEAP or LEAP scores, and special needs students are always put in the lowest level class. At times, they are put into classes where disabilities have not yet been identified. It is like a very large special education class; not exactly least restrictive.
- Students with special needs should be included in all general education classes; not just lowest level classes (where students are ability grouped). Students are sometimes grouped according to iLEAP or LEAP scores, and special needs students are always put in the lowest level class. At times, they are put into classes where disabilities have not yet been identified. It is like a very large special education class; not exactly least restrictive.

- Behavioral strategies; what to do when specific behaviors occur or how to prevent them altogether
- Most teachers are not prepared at all for including students with special needs.  
More instruction for all teachers is necessary
- Differentiated instruction, cooperative learning strategies, altered testing formats
- Time management for special needs students How to teach at a lower level  
Discipline Administration also needs additional training to learn productive strategies to deal with behavior issues
- Academic and behavior interventions
- Resources for providing content area texts that are on students independent reading levels.
- I would like to see more training in the areas of working with Disturbed and Gifted students.
- I think that teachers should receive training in what specific learning disabilities look like, and be able to observe good teachers in action when they are meeting those students' needs while meeting the needs of all the other students.
- As to inclusion, inclusion is workable when the students have a common cultural thread, a link to community or commonalities. The constant desire to put all special students in regular ed is a bogus concept and promotes the weakness of America as we work to accommodate those who are having children without the proper educational foundation, or economic abilities to take care of those children.

- They need to return to old non-graded non-high stakes testing alternative program. Then do authentic tracking of what they really learn by giving them the old adult performance level test. They had the answer years ago. Low stress, lots of extra-time, lots of fun, and the proper relationship between teacher caregiver and student.
- General education teachers should receive more preparation for accommodating sped students.
- specific strategies and materials targeted at different learning modalities
- A class that would provide strategies to help manage the classroom when there are multiple activities occurring at once to meet students' needs.
- More specific understanding of learning disabilities by general education teachers.
- More special education courses should be required of regular education teacher to have a greater knowledge of making accommodations and incorporating differentiated instruction.
- Differentiated instruction
- Continued emphasis on learning styles, multisensory instruction, and active/passive activities in relation to attention span.
- RTI and PBIS
- Structure and environment, special education can be somewhat overwhelming for a general education teacher. A basic break down of what it should look like and the roles and responsibilities the teacher has to that child.

- Teachers that have difficulty with differentiated instruction and classroom and testing modifications need an opportunity to observe classrooms that use best practices to understand the model of delivery
- Any help is always welcomed.
- Working with a paraprofessional more effectively. Differentiated Instruction - differentiating product, process, content but especially content.
- Teachers should use data-driven instruction. Behavioral accommodations could be more specifically addressed and practiced.
- How to implement accommodations for a few students and still be able to adequately teach the rest of the class at the same time.
- How to successfully deal with the parents of the children who are learning disabled and who have little or no parental involvement in their home....  
Specifically parents who know their children have needs but they are not willing to give them any extra help outside of school.
- Techniques that provide a variety of strategies for meeting a individual learning needs of students with special needs.
- The process of getting students into special education.
- I think colleges, schools, state, etc should not think of inclusion as a MUST, "fix-all." It doesn't always work for every student for every subject. Inclusion must meet the student's individual needs; it should also be kept in mind that inclusion sometimes hinders a child's progress because he/she may need more individualized time than a regular ed teacher can afford. Also, if the State/Nation expects teachers to be accountable based on their tests scores, regular ed teachers

will be inclined to avoid special ed students. Therefore, it is imperative that the individual progress be tracked for students with special needs and not just a score.

- Adaptation of general curriculum in order to facilitate the inclusion of students with mild to significant disabilities into the general education classroom.

Additionally, training on how to advocate as teachers for the supports and inclusion that is mandated by law.

- More inclusion training
- Differentiating instruction.
- Teacher training is preparing and administering accommodations in the primary curriculum.
- How to deal with behavior problems/disorders: oppositional disorders, hyperactive students, etc.
- More Kagan strategies and how to teach kids on various levels.
- make all teachers aware of the issues and provide training that will help the teaching and learning process
- Information about the law as it relates to special education and inclusion; co-teaching strategies with inclusion teachers; information about specific exceptionalities that might be encountered in an inclusion setting.
- Practical accommodations

- I think in pre-k we have good professional development and everything we need is included. I can't comment on higher grades.
- The teachers need to be told and evaluated on their level of cooperation with inclusion. Many find it easier to send the students out of the classroom when it is not necessary.
- The way the role of a special ed teacher is portrayed in general-ed classes at UNO, it makes special ed teachers sound like paraprofessionals--someone to help kids individually or in small groups with accommodations, but not to come up with any of their own lessons or, really, ideas. I think this portrayal really minimizes the special educator's role as an instructor.
- Differentiation of Instruction
- Differentiation of instruction, properly implementing accommodations
- To meet the needs of the diverse population that most teachers have in a group for their grade level universities/college should strive to immerse students in differentiation of instruction for all students from the moment they enter the college of education. Students should be actively involved with working with a variety of students during the entire time they are working toward certification.
- Multi -tasking How and when to group students
- I would like to see more specific accommodations listed on IEPs. For example, a student's I would like a specific computer program listed for students that require assistive technology.
- I wish the teacher that is assigned to work with students with special needs would spend more time in the planning process for the needs of the students instead of

the main subject teacher. I find that most of the time is spent on tests being read aloud.

- Co teaching and how to implement a strategy that will benefit both teachers while aiming to increase a students learning.
- Behavioral management
- Specific ways to target students with special needs.
- Differentiated curriculum
- How to run a differentiated classroom using small group instruction? Practice for teachers on developing meaningful small groups and managing classroom behavior as you run these small groups.
- Time Management for accommodations within the classroom setting.
- It is very difficult to include students in the classroom; inclusion students oftentimes suck up your time in order to deal with their behavior, and teachers tend to become jaded towards students with IEP's if not careful. Help us learn how to deal with their behavior, and teach us how to teach students who have behavior problems (which, oftentimes, are students with IEP's) how to behave appropriately in the classroom environment. Also, teach teacher how to appreciate students with disabilities, because, unfortunately, that is oftentimes lost.
- How to deal with specific disabilities
- I would like a clearer understanding of the the responsibilities of the regular ed teacher regarding the special ed students. Who decides exactly what changes should be made in testing and grading these students? I thought the special ed children were now being expected to pass the same tests as the regular ed

children, with possible read aloud accommodations except in reading comp tests.

But I am not clear on this. I am also unclear on the roles of the special ed teacher and the regular ed teacher in planning for and providing instruction for these inclusion children.

- Adjustment of having special needs students in a regular ed class, balancing a regular ed class with special need students, effective strategies for working with and teaching special need students, types of disabilities children may have and how to teach them effectively, not including speech.
- How to make effective behavioral and academic accommodations for students with ADHD, bipolar disorder, etc.
- Social/Emotional disturbance and specific learning disability
- Discipline. Regular education students have a difficult time understanding why students with special needs are allowed to do things they are not. This sometimes results in discipline issues.
- In my experience, inclusion singles out students with disabilities and makes learning more difficult mentally and emotionally.
- Materials to use that accommodate for differentiated levels of teaching; more explanation of the different disabilities and what to look for in students that may have them so that they don't fall through the cracks and get missed along the way.
- Teachers who are not trained in Spec Ed should not be teaching Spec Ed students together with regular ed students; one or the other or both suffer in the process.
- Teachers need to be able to pull out the key skills in the core curriculum for the special ed student. The amount of material many these students are expected to



master is beyond their grasp. The students need to be informed of tests and quizzes far in advance meaning at least a week in order to be successful.

Respondents were also asked if they had any other comments. Their responses were:

- I didn't understand the meaning of the question about asking lower level questions. I usually try to ask higher level questions of all students, because I believe that it promotes understanding and long term retention. However, students need to be able to recall and comprehend before they truly understand. So, I begin work and advance toward higher levels. I was a regular education teacher that practiced inclusion for four years.
- It is very frustrating for special education teachers to learn that accommodations and modifications are only being administered when the inclusion teacher is in the room. Students need these accommodations and modifications all day, and special education teachers cannot be in the room all day in most cases, so regular education teachers need to take some responsibility in administering these.
- There is resistance from both classroom teachers and some special ed. staff to use inclusion practices. Many have sent the students out for years and feel it is not their job to differentiate instruction. Some special educators facilitate this practice, pulling students from valuable instructional time, rather than working with the classroom teachers to modify instructional practices.
- I feel very strongly that teachers of students with special needs should be specifically trained to do so. I do not think it is in the best interests of the students to implement instruction in the education setting using non-certified teachers or teachers without instruction in the teaching of special education.

- Teachers today need planning time to prepare to meet the needs of not only special needs students, but all students. The more I am in teaching, the less planning we have to prepare, but yet we are expected to do so on a regular basis.
- Making specific accommodations is SO MUCH WORK. I am not a lazy person, and I struggle to get my normal work done, much less accommodations and such. Teach us how to be efficient in making these changes to our curricula, because really, it's just a matter of how much time we want to spend. Please don't just add a burden without helping us to bear it, because oftentimes general ed teachers get overwhelmed (just as special ed, and any other teacher does) with how much we have to do. Oh, also, once again, teach us how to appreciate our special ed students. And I don't mean with stories, but with in-class examples that really mean something.
- From what I have experienced so far, I am NOT in favor of inclusion for academic subjects if the special ed student is NOT capable of functioning on the level and at the rate expected of the regular students. I think it is good to include the special ed children with regular ed for part of the day to encourage and support socialization skills. However, when a child has been identified as having major problems that require specialized instruction, I think that can best be provided in an environment separate from the regular ed classroom. The special ed children were identified BECAUSE they were not able to function best in a regular classroom. I think their needs can best be met in a special ed classroom which caters to their needs. I think the regular ed children can make better progress if the classroom teacher can focus on their needs instead of spending an inordinate amount of time and energy meeting the needs of special ed children.

- Auxiliary teachers (cultural arts, librarian, speech, etc.) need to be made aware of techniques for dealing with inclusion students since they deal with them on a short-term basis.
- Teachers who are not trained in Spec Ed should not be teaching Spec Ed students together with regular ed students; one or the other or both suffer in the process.
- The district needs to give the regular education teachers more support in the class room by using inclusion teachers in the regular class instead of just paraprofessionals. Inclusion should be implemented more fully at the high school level including at the 9th grade academy.
- My Master's degree is in Special Education; however, I choose to teach regular education because not as many students are being targeted as special ed. As a teacher who went from special ed to regular ed, I truly understand why regular ed teachers get so frustrated with having to meet the demands of students with special needs. The demands are great and there is never enough time to do what needs to be done.
- It is a challenge when you only have 5 or so that need different accommodations in various elements of the curriculum and the rest of the class is ready to move forward. It is not right to just be concentrating on those 5 and make the other 20 wait to move forward. It would be helpful to have another adult in a regular ed class for an amount of time throughout the day to help implement the specific accommodations.
- I am glad to be retiring. We are headed in the wrong direction with all this interference from the federal government in our schools. Our schools should not even be run by the state.. They should be community based and run according to the customs, mores, and needs of the local people.

- Yes, once again, it is time to get the Federal Government and the State out of local education. Thomas Jefferson believed in public education but felt it was a local matter and was not a constitutional right. If you read the early framers there is nothing in the Constitution that would have formed a framework for the billions that is wasted trying to educate people who should take at least some of the responsibility for educating themselves upon themselves. Education should be free, but it should be controlled and paid for at the local level, therefore the principles of Adam Smith, and Milton Friedman would kick in, and people would put in to it what they expected to get from it. This is just an opinion.
- I have a real problem with inclusion of students with multiple special needs in the general education classroom. The time it takes working with these kids takes away from the time needed to address all benchmarks required by the Department of Education. Some of these students have no clue to where they are or the capacity to grasp the knowledge presented in the class.
- There is minimal time to plan with the SPED teacher. I am a former SPED teacher and the demands and accountability for regular ed teachers is great. Teachers will start resenting having to include Students with Special Needs in their classroom because of all the accountability with tests scores and all the other demands. Inclusion is only as good as the time provided. Also, I see an increased level of behavior issues because administration is afraid to issue consequences to students with special needs. I feel like we are becoming enablers.
- As I am an administrator, I have not taught for the last several years. I am answering questions based on past experience.

- Last school year (2010-2011) I had an inclusion class with 22 students. The class was 6th grade science. I had two non-readers and non-writers and the two students were on a third grade level. Included were five 504 students with all different individual needs and medical problems. I had problems getting the low level materials needed for the nonreaders and non-writers and needed to modify all their assignments. I was totally lost and very unhappy. I did the best I could but their iLEAP scores showed I did not met their needs; that was very disappointing.
- Good luck on your dissertation!
- No
- Good luck to you!
- This is a very well constructed survey.

Appendix

Q1.11	Rank	Accommodation/Modification	N	Sig.	Bonferroni Correction
W1		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)		.524	14.672
W2		Allow students extended time for completing assignments		.414	11.592
W3		Use graphic organizers in lessons		.000	0
W4		Administer tests orally to students		.000	0
W5		Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)		.155	4.34
W6		Use grading adaptations for students		.000	0
W7		Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)		.043	12.152
W8		Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)		.097	2.716
W9		Assign alternative assignments or projects to students		.000	0
W10		Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)		.495	1.386
W11		Assign fewer assignments		.000	0
W12		Use different levels of questions for students based on ability (e.g. lower level questions)		.006	.168
W13		Vary the rate of instruction for students		.000	0
W14		Highlight key information or concepts in text		.002	.056
W15		Adapt the format of tests (e.g., making tests less subjective)		.022	.616
W16		Provide additional drill or practice based on student progress		.020	.05
W17		Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or pages)		.046	1.288
W18		Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)		.000	0
W19		Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)		.000	0
W20		Provide both oral and written directions		.026	.728
W21		Allow students to dictate answers		.419	11.732

<b>W22</b>	Break tasks or concepts into small units of learning	.006	.168
<b>W23</b>	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.014	.392
<b>W24</b>	Provide differentiated instruction based on individual student's needs	.006	.168
<b>W25</b>	Use hands-on activities or manipulatives	.003	.084
<b>W26</b>	Allow students to draw pictures/diagrams as part of written assignments	.030	.84
<b>W27</b>	Allow students to use word processors for written assignments	.000	0
<b>W28</b>	Allow students to use calculators or math fact sheets	.000	0

Inspection of Table X? reveals that teacher type was significantly correlated with only 10 of the 28 variables. The number of variables in the single analysis increased the possibility of Type 1 error; therefore, Bonferroni corrections were performed (multiplying the levels of significance by the number of variables).

Table X? shows teachers' perception of their willingness to implement accommodations and modifications for teachers. The rating scale was as follows:

0 = not applicable

1 = definitely not willing

2 = probably not willing

3 = don't know

4 = probably willing

5 = definitely willing

Overall teachers reported a high level of willingness to make accommodations and modifications. Respondents perceived themselves as most willing to allow students to use cooperative learning and least willing to assign fewer assignments. All accommodations received means above "probably willing" except for "assign fewer assignments." Its mean of ?? was very close to that level. The mean scores on the willingness scale ranged from (assign fewer assignments) to (use cooperative learning).

<b>Q1.1</b>	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>Sig.</b>	<b>Bonferroni Correction</b>
<b>W1</b>		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)	.574	16.072
<b>W2</b>		Allow students extended time for completing assignments	.048	1.344
<b>W3</b>		Use graphic organizers in lessons		
<b>W4</b>		Administer tests orally to students	.140	3.92
<b>W5</b>		Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)	.028	.784
<b>W6</b>		Use grading adaptations for students	.187	5.236
<b>W7</b>		Lessen environmental distractions (e.g. keep noise	.858	24.024

	levels down, reduce the visual stimuli in the classroom)		
<b>W8</b>	Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills	.574	16.072
<b>W9</b>	Assign alternative assignments or projects to students	.574	16.072
<b>W10</b>	Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)	.651	18.228
<b>W11</b>	Assign fewer assignments	.054	1.512
<b>W12</b>	Use different levels of questions for students based on ability (e.g. lower level questions)	.608	17.024
<b>W13</b>	Vary the rate of instruction for students	.917	25.676
<b>W14</b>	Highlight key information or concepts in text	.062	1.736
<b>W15</b>	Adapt the format of tests (e.g., making tests less subjective)	.284	7.952
<b>W16</b>	Provide additional drill or practice based on student progress	.088	2.464
<b>W17</b>	Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or pages)	.608	17.024
<b>W18</b>	Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)	.062	1.736
<b>W19</b>	Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)	.028	.784
<b>W20</b>	Provide both oral and written directions	.226	6.328
<b>W21</b>	Allow students to dictate answers	.200	5.6
<b>W22</b>	Break tasks or concepts into small units of learning	.088	2.464
<b>W23</b>	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.012	.336
<b>W24</b>	Provide differentiated instruction based on individual student's needs	.226	6.328
<b>W25</b>	Use hands-on activities or manipulatives		
<b>W26</b>	Allow students to draw pictures/diagrams as part of written assignments	.088	2.464
<b>W27</b>	Allow students to use word processors for written assignments	.140	3.92
<b>W28</b>	Allow students to use calculators or math fact sheets	.574	16.072



<b>Q1.2</b>	<b>Rank</b>	<b>Accommodation/Modification</b>	<b><i>N</i></b>	<b>Sig.</b>	<b>Bonferroni Correction</b>
<b>W1</b>		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)		.002	.056
<b>W2</b>		Allow students extended time for completing assignments		.031	.868
<b>W3</b>		Use graphic organizers in lessons		.034	.952
<b>W4</b>		Administer tests orally to students		.316	8.848
<b>W5</b>		Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)		.469	13.132
<b>W6</b>		Use grading adaptations for students		.460	12.88
<b>W7</b>		Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)		.789	22.092
<b>W8</b>		Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)		.134	3.752
<b>W9</b>		Assign alternative assignments or projects to students		.469	13.132
<b>W10</b>		Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)		.324	9.072
<b>W11</b>		Assign fewer assignments		.268	7.504
<b>W12</b>		Use different levels of questions for students based on ability (e.g. lower level questions)		.365	10.22
<b>W13</b>		Vary the rate of instruction for students		.580	16.24
<b>W14</b>		Highlight key information or concepts in text		.689	19.292
<b>W15</b>		Adapt the format of tests (e.g., making tests less subjective)		.090	2.52
<b>W16</b>		Provide additional drill or practice based on student progress		.080	2.24
<b>W17</b>		Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or pages)		.401	11.228
<b>W18</b>		Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)		.537	15.036
<b>W19</b>		Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)		.791	22.148
<b>W20</b>		Provide both oral and written directions		.858	22.024
<b>W21</b>		Allow students to dictate answers		.572	16.016
<b>W22</b>		Break tasks or concepts into small units of learning		.416	11.648

<b>W23</b>	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.622	17.416
<b>W24</b>	Provide differentiated instruction based on individual student's needs	.010	.28
<b>W25</b>	Use hands-on activities or manipulatives	.124	3.472
<b>W26</b>	Allow students to draw pictures/diagrams as part of written assignments	.634	17.752
<b>W27</b>	Allow students to use word processors for written assignments	.121	3.388
<b>W28</b>	Allow students to use calculators or math fact sheets	.204	5.712

<b>Q1.3</b>	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Sig.</b>	<b>Bonferroni Correction</b>
<b>W1</b>		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)		.004	.112
<b>W2</b>		Allow students extended time for completing assignments		.984	27.552
<b>W3</b>		Use graphic organizers in lessons		.075	2.1
<b>W4</b>		Administer tests orally to students		.119	3.332
<b>W5</b>		Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)		.016	.448
<b>W6</b>		Use grading adaptations for students		.210	5.88
<b>W7</b>		Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)		.170	4.76
<b>W8</b>		Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)		.380	10.64
<b>W9</b>		Assign alternative assignments or projects to students		.040	1.12
<b>W10</b>		Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)		.186	5.208
<b>W11</b>		Assign fewer assignments		.631	17.668
<b>W12</b>		Use different levels of questions for students based on ability (e.g. lower level questions)		.012	.336
<b>W13</b>		Vary the rate of instruction for students		.029	.812
<b>W14</b>		Highlight key information or concepts in text		.091	2.548
<b>W15</b>		Adapt the format of tests (e.g., making tests less subjective)		.089	2.492
<b>W16</b>		Provide additional drill or practice based on student progress		.005	.14
<b>W17</b>		Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or		.098	2.744

	pages)		
<b>W18</b>	Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)	.002	.056
<b>W19</b>	Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)	.002	.056
<b>W20</b>	Provide both oral and written directions	.37	1.036
<b>W21</b>	Allow students to dictate answers	.383	10.724
<b>W22</b>	Break tasks or concepts into small units of learning	.002	.056
<b>W23</b>	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.019	.532
<b>W24</b>	Provide differentiated instruction based on individual student's needs	.016	.448
<b>W25</b>	Use hands-on activities or manipulatives	.239	6.692
<b>W26</b>	Allow students to draw pictures/diagrams as part of written assignments	.015	.42
<b>W27</b>	Allow students to use word processors for written assignments	.189	5.292
<b>W28</b>	Allow students to use calculators or math fact sheets	.089	2.492

<b>Q1.4</b>	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Sig.</b>	<b>Bonferroni Correction</b>
<b>W1</b>		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)		.842	23.576
<b>W2</b>		Allow students extended time for completing assignments		.240	6.72
<b>W3</b>		Use graphic organizers in lessons		.000	0
<b>W4</b>		Administer tests orally to students		.000	0
<b>W5</b>		Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)		.614	17.192
<b>W6</b>		Use grading adaptations for students		.001	.028
<b>W7</b>		Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)		.100	2.8
<b>W8</b>		Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)		.176	4.928
<b>W9</b>		Assign alternative assignments or projects to students		.001	.028
<b>W10</b>		Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)		.986	27.608
<b>W11</b>		Assign fewer assignments		.000	0
<b>W12</b>		Use different levels of questions for students based		.040	1.12

	on ability (e.g. lower level questions)		
<b>W13</b>	Vary the rate of instruction for students	.000	0
<b>W14</b>	Highlight key information or concepts in text	.010	.28
<b>W15</b>	Adapt the format of tests (e.g., making tests less subjective)	.095	2.66
<b>W16</b>	Provide additional drill or practice based on student progress	.315	8.82
<b>W17</b>	Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number of pages)	.259	7.252
<b>W18</b>	Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)	.005	.14
<b>W19</b>	Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)	.014	.392
<b>W20</b>	Provide both oral and written directions	.140	3.92
<b>W21</b>	Allow students to dictate answers	.896	25.088
<b>W22</b>	Break tasks or concepts into small units of learning	.115	3.22
<b>W23</b>	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.144	4.032
<b>W24</b>	Provide differentiated instruction based on individual student's needs	.041	1.148
<b>W25</b>	Use hands-on activities or manipulatives	.009	.252
<b>W26</b>	Allow students to draw pictures/diagrams as part of written assignments	.202	5.656
<b>W27</b>	Allow students to use word processors for written assignments	.000	0
<b>W28</b>	Allow students to use calculators or math fact sheets	.000	0

<b>Q2</b>	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Sig.</b>	<b>Bonferroni Correction</b>
<b>P1</b>		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)		.042	1.176
<b>P2</b>		Allow students extended time for completing assignments		.000	0
<b>P3</b>		Use graphic organizers in lessons		.006	.168
<b>P4</b>		Administer tests orally to students		.000	0
<b>P5</b>		Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)		.766	21.448
<b>P6</b>		Use grading adaptations for students		.005	.14
<b>P7</b>		Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the		.156	4.368

	classroom)				
P8	Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills	.005	.14		
P9	Assign alternative assignments or projects to students	.9008	.224		
P10	Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)	.893	25.004		
P11	Assign fewer assignments	.006	.168		
P12	Use different levels of questions for students based on ability (e.g. lower level questions)	.621	17.388		
P13	Vary the rate of instruction for students	.065	1.82		
P14	Highlight key information or concepts in text	.026	.728		
P15	Adapt the format of tests (e.g., making tests less subjective)	.899	25.117		
P16	Provide additional drill or practice based on student progress	.000	0		
P17	Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or pages)	.000	0		
P18	Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)	.178	4.984		
P19	Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)	.858	24.024		
P20	Provide both oral and written directions	.004	.112		
P21	Allow students to dictate answers	.060	1.68		
P22	Break tasks or concepts into small units of learning	.003	.084		
P23	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.347	9.716		
P24	Provide differentiated instruction based on individual student's needs	.037	1.036		
P25	Use hands-on activities or manipulatives	.937	26.236		
P26	Allow students to draw pictures/diagrams as part of written assignments	.455	12.74		
P27	Allow students to use word processors for written assignments	.006	.168		
P28	Allow students to use calculators or math fact sheets	.000	0		
Q2.1	Rank	Accommodation/Modification	N	Sig.	Bonferroni Correction
P1		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)		.033	.924

<b>P2</b>	Allow students extended time for completing assignments	.226	6.328
<b>P3</b>	Use graphic organizers in lessons	.747	20.916
<b>P4</b>	Administer tests orally to students	.226	6.328
<b>P5</b>	Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)	.729	20.412
<b>P6</b>	Use grading adaptations for students	.750	21
<b>P7</b>	Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)	.595	16.66
<b>P8</b>	Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)	.159	4.452
<b>P9</b>	Assign alternative assignments or projects to students	.479	13.412
<b>P10</b>	Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)	.802	22.456
<b>P11</b>	Assign fewer assignments	.034	.952
<b>P12</b>	Use different levels of questions for students based on ability (e.g. lower level questions)	.918	25.704
<b>P13</b>	Vary the rate of instruction for students	.221	6.188
<b>P14</b>	Highlight key information or concepts in text	.421	11.788
<b>P15</b>	Adapt the format of tests (e.g., making tests less subjective)	.262	7.336
<b>P16</b>	Provide additional drill or practice based on student progress	.858	24.024
<b>P17</b>	Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or pages)	.140	3.92
<b>P18</b>	Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)	.225	6.3
<b>P19</b>	Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)	.019	.532
<b>P20</b>	Provide both oral and written directions	.226	6.328
<b>P21</b>	Allow students to dictate answers	.017	.476
<b>P22</b>	Break tasks or concepts into small units of learning	.421	11.788
<b>P23</b>	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.192	5.376
<b>P24</b>	Provide differentiated instruction based on individual student's needs	.221	6.188
<b>P25</b>	Use hands-on activities or manipulatives	.937	26.236
<b>P26</b>	Allow students to draw pictures/diagrams as part of written assignments	.455	12.74
<b>P27</b>	Allow students to use word processors for written	.595	16.66

		assignments			
<b>P28</b>		Allow students to use calculators or math fact sheets		.000	0
<b>Q2.2</b>	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Sig.</b>	<b>Bonferroni Correction</b>
<b>P1</b>		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)		.113	3.164
<b>P2</b>		Allow students extended time for completing assignments		.010	.28
<b>P3</b>		Use graphic organizers in lessons		.656	18.368
<b>P4</b>		Administer tests orally to students		.045	1.26
<b>P5</b>		Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)		.704	19.712
<b>P6</b>		Use grading adaptations for students		.204	5.712
<b>P7</b>		Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)		.705	19.74
<b>P8</b>		Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)		.043	1.204
<b>P9</b>		Assign alternative assignments or projects to students		.269	7.532
<b>P10</b>		Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)		.267	7.476
<b>P11</b>		Assign fewer assignments		.327	9.156
<b>P12</b>		Use different levels of questions for students based on ability (e.g. lower level questions)		.556	15.568
<b>P13</b>		Vary the rate of instruction for students		.451	12.628
<b>P14</b>		Highlight key information or concepts in text		.728	20.384
<b>P15</b>		Adapt the format of tests (e.g., making tests less subjective)		.339	9.492
<b>P16</b>		Provide additional drill or practice based on student progress		.422	11.816
<b>P17</b>		Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number or pages)		.103	2.884
<b>P18</b>		Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)		.764	21.392
<b>P19</b>		Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)		.557	15.596
<b>P20</b>		Provide both oral and written directions		.296	8.288
<b>P21</b>		Allow students to dictate answers		.532	14.896
<b>P22</b>		Break tasks or concepts into small units of learning		.653	18.284
<b>P23</b>		Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)		.196	5.488
<b>P24</b>		Provide differentiated instruction based on individual student's needs		.539	15.092
<b>P25</b>		Use hands-on activities or manipulatives		.547	15.316
<b>P26</b>		Allow students to draw pictures/diagrams as part of written assignments		.558	15.624
<b>P27</b>		Allow students to use word processors for written assignments		.407	11.396
<b>P28</b>		Allow students to use calculators or math fact sheets		.025	.7

<b>Q2.3</b>	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Sig.</b>	<b>Bonferroni Correction</b>
<b>P1</b>		Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)		.979	27.412
<b>P2</b>		Allow students extended time for completing assignments		.000	0
<b>P3</b>		Use graphic organizers in lessons		.246	6.888
<b>P4</b>		Administer tests orally to students		.000	0
<b>P5</b>		Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)		.752	21.056
<b>P6</b>		Use grading adaptations for students		.163	4.564
<b>P7</b>		Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)		.270	7.56
<b>P8</b>		Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)		.233	6.524
<b>P9</b>		Assign alternative assignments or projects to students		.101	2.828
<b>P10</b>		Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)		.948	26.544
<b>P11</b>		Assign fewer assignments		.005	.14
<b>P12</b>		Use different levels of questions for students based on ability (e.g. lower level questions)		.871	24.388
<b>P13</b>		Vary the rate of instruction for students		.829	23.212
<b>P14</b>		Highlight key information or concepts in text		.110	3.08
<b>P15</b>		Adapt the format of tests (e.g., making tests less subjective)		.501	14.028
<b>P16</b>		Provide additional drill or practice based on student progress		.073	2.044
<b>P17</b>		Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number of pages)		.057	1.596
<b>P18</b>		Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)		.251	7.028
<b>P19</b>		Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)		.077	2.156
<b>P20</b>		Provide both oral and written directions		.007	.196
<b>P21</b>		Allow students to dictate answers		.001	.028
<b>P22</b>		Break tasks or concepts into small units of learning		.074	2.072
<b>P23</b>		Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)		.0619	17.332
<b>P24</b>		Provide differentiated instruction based on individual student's needs		.731	20.468
<b>P25</b>		Use hands-on activities or manipulatives		.877	24.556
<b>P26</b>		Allow students to draw pictures/diagrams as part of written assignments		.414	11.592
<b>P27</b>		Allow students to use word processors for written assignments		.390	10.92
<b>P28</b>		Allow students to use calculators or math fact sheets		.027	.756
<b>Q2.4</b>	<b>Rank</b>	<b>Accommodation/Modification</b>	<b>N</b>	<b>Sig.</b>	<b>Bonferroni</b>



			Correction
P1	Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)	.008	.224
P2	Allow students extended time for completing assignments	.000	0
P3	Use graphic organizers in lessons	.013	.364
P4	Administer tests orally to students	.000	0
P5	Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)	.965	27.02
P6	Use grading adaptations for students	.002	.056
P7	Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)	.417	11.676
P8	Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)	.013	.364
P9	Assign alternative assignments or projects to students	.017	.476
P10	Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)	.937	26.236
P11	Assign fewer assignments	.107	2.996
P12	Use different levels of questions for students based on ability (e.g. lower level questions)	.552	14.456
P13	Vary the rate of instruction for students	.016	.448
P14	Highlight key information or concepts in text	.110	3.08
P15	Adapt the format of tests (e.g., making tests less subjective)	.962	26.936
P16	Provide additional drill or practice based on student progress	.001	.028
P17	Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number of pages)	.000	0
P18	Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)	.327	9.156
P19	Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)	.511	14.308
P20	Provide both oral and written directions	.062	1.736
P21	Allow students to dictate answers	.480	13.44
P22	Break tasks or concepts into small units of learning	.038	1.064
P23	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.059	1.652
P24	Provide differentiated instruction based on individual student's needs	.012	.336
P25	Use hands-on activities or manipulatives	.984	27.552
P26	Allow students to draw pictures/diagrams as part of written assignments	.708	19.824
P27	Allow students to use word processors for written assignments	.008	.224
P28	Allow students to use calculators or math fact sheets	.000	0

Q1.1	Accommodation/Modification	Sig.	Bonferroni Correction
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<b>W1</b>	Use cooperative learning (e.g., having students work in small groups or teams to help each other learn concepts)	.574	16.072
<b>W2</b>	Allow students extended time for completing assignments	.048	1.344
<b>W3</b>	Use graphic organizers in lessons		
<b>W4</b>	Administer tests orally to students	.140	3.92
<b>W5</b>	Directly teach students strategies to problem solve (e.g., SQ3R, Mnemonics, etc.)	.028	.784
<b>W6</b>	Use grading adaptations for students	.187	5.236
<b>W7</b>	Lessen environmental distractions (e.g. keep noise levels down, reduce the visual stimuli in the classroom)	.858	24.024
<b>W8</b>	Use peer tutoring (e.g., two students who are paired together and work to promote success in learning concepts or practicing skills)	.574	16.072
<b>W9</b>	Assign alternative assignments or projects to students	.574	16.072
<b>W10</b>	Break down assignments into multiple parts with feedback (e.g., independent work and homework assignments)	.651	18.228
<b>W11</b>	Assign fewer assignments	.054	1.512
<b>W12</b>	Use different levels of questions for students based on ability (e.g. lower level questions)	.608	17.024
<b>W13</b>	Vary the rate of instruction for students	.917	25.676
<b>W14</b>	Highlight key information or concepts in text	.062	1.736
<b>W15</b>	Adapt the format of tests (e.g., making tests less subjective)	.284	7.952
<b>W16</b>	Provide additional drill or practice based on student progress	.088	2.464
<b>W17</b>	Adjust the length of assignments (e.g., reduce the number of items on a page or reduce the number of pages)	.608	17.024
<b>W18</b>	Provide organizational strategies and supports (e.g., weekly calendars, color-coded notebooks, assignment checks)	.062	1.736
<b>W19</b>	Simplify text material (e.g., reduce the complexity and length of units, provide graphic aids that summarize material, provide self-correcting materials)	.028	.784
<b>W20</b>	Provide both oral and written directions	.226	6.328
<b>W21</b>	Allow students to dictate answers	.200	5.6
<b>W22</b>	Break tasks or concepts into small units of learning	.088	2.464
<b>W23</b>	Use alternative forms of textbooks or trade books (e.g., high interest, low vocabulary books; graphic novels; e-books; audio books)	.012	.336
<b>W24</b>	Provide differentiated instruction based on individual student's needs	.226	6.328
<b>W25</b>	Use hands-on activities or manipulatives		
<b>W26</b>	Allow students to draw pictures/diagrams as part of written assignments	.088	2.464
<b>W27</b>	Allow students to use word processors for written assignments	.140	3.92
<b>W28</b>	Allow students to use calculators or math fact sheets	.574	16.072

*ANOVA Special Education Teachers – General Education Teachers Significant Only Regarding Preparedness*

		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
<b>P2</b>	Between Groups	2.469	1	2.469	5.726	.018
	Within Groups	62.957	146	.431		
	Total	65.426	147			
<b>P4</b>	Between Groups	5.862	1	5.862	7.770	.006
	Within Groups	108.631	144	.754		
	Total	114.493	145			
<b>P6</b>	Between Groups	11.235	1	11.235	8.879	.003
	Within Groups	180.931	143	1.265		
	Total	192.166	144			
<b>P9</b>	Between Groups	6.801	1	6.801	6.733	.010
	Within Groups	145.446	144	1.010		
	Total	152.247	145			
<b>P11</b>	Between Groups	5.907	1	5.907	7.022	.009
	Within Groups	121.134	144	.841		
	Total	127.041	145			
<b>P13</b>	Between Groups	5.084	1	5.084	6.127	.014
	Within Groups	120.317	145	.830		
	Total	125.401	146			
<b>P16</b>	Between Groups	4.572	1	4.572	8.233	.005
	Within Groups	81.630	147	.555		
	Total	86.201	148			
<b>P17</b>	Between Groups	5.043	1	5.043	9.926	.002
	Within Groups	73.665	145	.508		
	Total	78.707	146			
<b>P22</b>	Between Groups	4.239	1	4.239	5.566	.020
	Within Groups	111.187	146	.762		
	Total	115.426	147			
<b>P24</b>	Between Groups	4.816	1	4.816	4.786	.030
	Within Groups	147.923	147	1.006		
	Total	152.738	148			
<b>P27</b>	Between Groups	3.937	1	3.937	4.214	.042
	Within Groups	130.802	140	.934		
	Total	134.739	141			
<b>P28</b>	Between Groups	7.020	1	7.020	7.838	.006
	Within Groups	120.921	135	.896		
	Total	127.942	136			

## **Vita**

Ramona Diane Williamson is a native of Louisiana. Ms Williamson graduated from Nicholls State University in Thibodaux, Louisiana, where she earned a Bachelor of Arts degree in French in 1983. Before entering the education profession as a special education teacher, she studied at Université Paul Valéry, Montpellier III, in Montpellier, France. Founded in 1289 it is one of the oldest universities in Europe. She earned her M.Ed. in Special Education at the University of New Orleans in 1994.

Ms Williamson's professional life has focused on the teaching of reading and the inclusion of students with special needs in the general education classroom. As a teacher her goal is to instill in her students a love of reading. She was selected as Teacher of the Year, 1998-1999, at C. F. Rowley Elementary School, and selected as a Wal-Mart Teacher of the Year in 2000. During her tenure as a special education teacher and as a doctoral student at the University of New Orleans, she wrote several journal articles and presented papers at state, regional, national, and international conferences. She is currently librarian at W. Smith Elementary School in Violet, Louisiana, where she was selected St. Bernard Parish Reading Council Librarian of the Year, 2010-2011. Ms Williamson has also written and received numerous grants. She is a member of honorary and professional organizations that promote excellence in education for all students and is an active volunteer in her community.

