Spring 2012

A Description of Accommodations, Modifications, and Forms of Assessments in Middle Schools That Made Adequate Yearly Progress in an Urban County During 2010

Quinton Joel Morris
Georgia Southern University

Follow this and additional works at: https://digitalcommons.georgiasouthern.edu/etd

Recommended Citation
Morris, Quinton Joel, "A Description of Accommodations, Modifications, and Forms of Assessments in Middle Schools That Made Adequate Yearly Progress in an Urban County During 2010" (2012). Electronic Theses and Dissertations. 401.
https://digitalcommons.georgiasouthern.edu/etd/401

This dissertation (open access) is brought to you for free and open access by the Graduate Studies, Jack N. Averitt College of at Digital Commons@Georgia Southern. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.
A DESCRIPTION OF ACCOMMODATIONS, MODIFICATIONS, AND FORMS OF ASSESSMENTS IN MIDDLE SCHOOLS THAT MADE ADEQUATE YEARLY PROGRESS IN AN URBAN COUNTY DURING 2010

by

QUINTON JOEL MORRIS

(Under the Direction of Denise Weems)

ABSTRACT

Students with disabilities (SWD) have frequently been one of the subgroups not to make adequate yearly progress (AYP) in middle schools. If one subgroup does not meet the required objectives for meeting Adequate Yearly Progress (AYP), the entire school does not meet AYP. The purpose of this study was to identify accommodations, modifications, and forms of assessments that inclusion teachers find useful in middle schools that made adequately yearly progress.

The researcher conducted a quantitative study. This study was a descriptive study using survey data. A total of 78 inclusion teachers participated in the study. The data indicated that inclusion teachers used presentation, response, and time/scheduling accommodations weekly and they used setting accommodations either weekly or seldom. Secondly, the survey data indicated all inclusion co-teachers used all of the five modifications on a weekly basis. Thirdly, the survey data indicated that inclusion teachers used: true-false quizzes, multiple choice test, and short answer tests as the forms of assessment. Inclusion teachers rarely used benchmark assessments, projects, portfolios or online assessments.

More practice and training should be provided to administrators and inclusion teachers who practice co teaching in the inclusion classroom setting. Administrators
should provide ongoing training to inclusion teachers on when to appropriately use accommodations, modifications, and forms of assessments.

INDEX WORDS: Students with disabilities, Inclusion teachers, Accommodations, Modifications, Forms of assessments, Adequate yearly progress
A DESCRIPTION OF ACCOMMODATIONS, MODIFICATIONS, AND FORMS OF ASSESSMENTS IN MIDDLE SCHOOLS THAT MADE ADEQUATE YEARLY PROGRESS IN AN URBAN COUNTY DURING 2010

by

QUINTON JOEL MORRIS

B.S., University of Alabama at Birmingham, 1995
M.A.E., University of Alabama at Birmingham, 1999
Ed.S., University of Alabama at Birmingham, 2002
Ed.S., Jacksonville State University, 2006

A Dissertation Submitted to the Graduate Faculty of Georgia Southern University in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

STATESBORO, GEORGIA

2012
A DESCRIPTION OF ACCOMMODATIONS, MODIFICATIONS, AND FORMS OF ASSESSMENTS IN MIDDLE SCHOOLS THAT MADE ADEQUATE YEARLY PROGRESS IN AN URBAN COUNTY DURING 2010

by

QUINTON JOEL MORRIS

Major Professor: Denise Weems
Committee: Randy Carlson
Angela Crawford
Russell Mays

Electronic Version Approved:
May 2012
DEDICATION

This dissertation is dedicated to my mother, Mrs. Rodelia Hill Morris, who reminds me daily to pray all along the way. She has encouraged me from childhood until adulthood. She has been a mother and a father, a disciplinarian, and a parent who rewards when necessary. I never thought that she would have to nurse me back to good health during this journey, but she did it without asking. I am so honored to have her as my mother, as well as, my best friend.

In addition, this dissertation is also dedicated to my sisters: Venita Morris, Cassandra Morris, Mia Morris-Greaves, and my brothers: Booker Morris, Eric Morris, Michael Morris, Cecil Morris, Maury Morris, Allyn Morris (deceased), and Terris Morris. I am so grateful to each of my siblings for their continuous encouragement, smiles, hugs, and kisses throughout my entire life. They reminded me that all things are possible and that they are so proud of me. However, if only they knew, I am just as proud of each of them for their accomplishments, wisdom, and love. I would like to thank each of them for their financial support and for helping me to make my journey. I am honored to be their brother and I love each of them.
ACKNOWLEDGMENTS

I would like to acknowledge, first and foremost, my heavenly father for having given me the strength to endure this process. He serves as my guide and leader and has directed my path to accomplish another undertaking.

I would also like to thank Dr. Weems who had the faith in me and supported me continuously. The motivation and encouragement that she has provided me to move onto the next chapter is unforgettable, and I’ll always remember her saying, “this is not an overnight process.” I am also grateful to Dr. Crawford whose encouragement and support allowed me to maintain my pace. You are an angel that showed up unexpectedly whenever I needed encouragement, and for this I am grateful.

To Dr. Carlson for his ability to pay attention to the smallest details and keep me on the track I am indebted. His firm voice caused me tremors, but I knew that I was in the right hands. I could never leave out Dr. Mays who reminded me when I was feeling as though I’d failed that the information I was researching was needed for administrators and that I should continue my research. I am honored to have had him on my team to guide me through this process. Although, they came near the end of my journey, I know that God sent them.

Finally, I would be remised if I did not acknowledgement my good friend and sister in Christ Dr. Lindra James-Gordon. You motivated me throughout the entire journey. I am so happy that we became friends and coaching partners. You provided unselfishly, your time, support and encouragement throughout my journey, and for this I say thank you Dr. Gordon.
TABLE OF CONTENTS

ACKNOWLEDGMENTS ..................................................................................................................8

LIST OF TABLES .........................................................................................................................12

LIST OF FIGURES .......................................................................................................................13

CHAPTER

1 INTRODUCTION ......................................................................................................................14

Background .................................................................................................................................16

Statement of the Problem ...........................................................................................................18

Research Questions .....................................................................................................................19

Conceptual Framework ...............................................................................................................20

Significance of the Study .............................................................................................................20

Delimitations ...............................................................................................................................21

Limitations ..................................................................................................................................21

Definition of Terms ......................................................................................................................22

Summary .....................................................................................................................................24

2 REVIEW OF RESEARCH AND RELATED LITERATURE ..................................................26

Definition of Inclusion .................................................................................................................26

Inclusion Models ........................................................................................................................28

How Students Benefit from Inclusion ........................................................................................29

The Laws .....................................................................................................................................31

Assessment Practices ..................................................................................................................32

Accommodations .......................................................................................................................44

Modifications ...............................................................................................................................50

Educational Leaders Assessment of Best Practices .................................................................51
3 METHODS .................................................................61
Research Questions .........................................................61
Research Design .............................................................62
Instrumentation ..............................................................62
Population/Sample ..........................................................65
Participants .................................................................66
Sample ........................................................................66
Pilot Study .................................................................67
Data Collection .............................................................70
Response Rate ..............................................................70
Data Analysis ...............................................................71
Reporting the Data ........................................................72
Summary .....................................................................72

4 REPORT OF DATA AND DATA ANALYSIS ................................74
Demographic Profile of Respondents ...............................75
Data Analysis ...............................................................77
Findings .................................................................78
Response to Research Questions ................................................92
Summary .....................................................................97

5 SUMMARY ..................................................................100
Analysis of Research Findings ........................................101
Discussion of Research Findings ........................................103
Conclusion ..................................................................106
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implications</td>
<td>107</td>
</tr>
<tr>
<td>Recommendations</td>
<td>110</td>
</tr>
<tr>
<td>Dissemination</td>
<td>112</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>113</td>
</tr>
</tbody>
</table>
APPENDICES

A  IRB PROPOSAL ...........................................................................................................122
B  INFORMED CONSENT...............................................................................................1244
C  LITERATURE MATRIX ..............................................................................................1247
D  SURVEY QUESTIONS .................................................................................................130
LIST OF TABLES

Table 3.1: Teaching Experience for Pilot Participants ........................................68
Table 3.2: Response Rate to Open-Ended Survey Questions ...............................69
Table 4.1: Descriptive Data Featuring Participant Demographic Characteristics ....76
Table 4.2: Survey Dimension Reliability and Descriptive Characteristics ...............79
Table 4.3: Forms of Assessment Used in Inclusion Classroom Settings ...............80
Table 4.4: True False Quiz ..................................................................................81
Table 4.5: Multiple Choice Test ..........................................................................82
Table 4.6: Short Answer ......................................................................................83
Table 4.7: Essay Test ..........................................................................................84
Table 4.8: Portfolios ............................................................................................85
Table 4.9: Benchmarks .......................................................................................86
Table 4.10: Georgia Online Assessment ..............................................................87
Table 4.11: Projects ............................................................................................88
Table 4.12: Use of Modifications in Inclusion Classroom Settings .....................89
Table 4.13: Overall Usage of the Four Accommodations by Assessment Type ........93
Table 4.14: Mean Usage of Each Accommodation Type ....................................96
LIST OF FIGURES

Figure 1: Conceptual Framework ........................................................................18
Figure 2: Dimensions of the Study .................................................................90
Figure 3: Types of Accommodations ...............................................................91
CHAPTER 1
INTRODUCTION

Research has shown that teachers and administrators perceive inclusion as one of the most effective models when teaching students with disabilities (Idol, 2006). Allowing disabled students to participate in an inclusion setting has shown to increase students self esteem, social skills, and their morale for learning. No Child Left Behind (NCLB) legislation according to Carter (2007) and The United States Department of Education (USDOE, 2000) requires that schools become accountable for students academic success. In addition, NCLB mandates that students’ academic achievement be measured using standardized test. Federal legislation known as the Individuals with Disabilities Education Act (IDEA) of 1975 requires that students are taught in the Least Restrictive Environment (LRE), and maximum extent possible with other nondisabled peers. The practice of co-teaching as the inclusion service delivery model not only meets the requirements of LRE, but also is an effective instructional teaching model that improves student academic achievement (Friend, Hurley-Chamberlain, & Shamberger, 2010; Idol, 2006).

Teachers have traditionally used general assessment methods in classrooms to evaluate students’ achievement. These methods may have included, but are not limited to: true-false tests, matching exercises, multiple choice tests, problem solving tests, short-answer tests, and essay tests (Notar, Zuelke, Wilson, & Yunker, 2004). Teachers use formative assessments to adjust instructional strategies, as well as, to provide feedback to students on how they can adjust their learning behaviors (Frey & Schmitt,
Moreover, according to Frey & Schmitt, (2007) teachers use summative assessment at the end of a lesson to evaluate that which has been learned by students. Frey and Schmitt (2007) also agreed that assessment becomes formative when teachers use formative assessment to promote teaching and learning to meet the needs of all students. NCLB reforms have caused teachers to shift from traditional forms of assessment to the use of multiple assessments to evaluate student achievement and academic performance (Ohlsen, 2007).

Shaftel, Yang, Glasnapp, and Poggio (2005) determined that general assessment may not always be valid for students with disabilities. Students with disabilities require general curriculum assessments, alternative forms of test, as well as, a variety of accommodations and modifications developed by their teachers to show academic achievement and measure their learning. Zhang and Burry-Stock (2003), and Hollenbeck and Tindal (1998) determined that special education teachers are not well informed about assessment and assessment procedures. Furthermore, Zhang and Burry-Stock (2003), and Hollenbeck and Tindal (1998) agreed that teacher deficits in the area of testing and measurement are due to assessment classes not being incorporated in many teacher education programs at the state level. Moreover, teachers who lack college training in assessment may not utilize school resource personnel as a source of assistance on accommodation related issues. Using teacher made tests to assess students with disabilities may create problems when teachers are not constructing tests appropriately (Hollenbeck and Tindal, 1998; Zhang and Burry-Stock, 2003). Therefore, the purpose of this study was to identify accommodations, modifications, and forms of assessments that inclusion teachers find useful in middle schools that
made adequately yearly progress (AYP). These instructional strategies may allow students with disabilities to participate on standardized test, and increase the opportunities for middle schools to meet AYP.

**Background**

Students with disabilities have not always participated in inclusion classrooms (Armstrong, 2002). Prior to IDEA, students with disabilities were primarily placed in a resource classroom away from their peers. NCLB changed the way teachers delivered instruction to students with disabilities allowing students with disabilities to be placed in the general education classroom with nondisabled peers. On the other hand, the Individuals with Disabilities Education Act of 1975 (IDEA) opened doors for students with disabilities to be taught in the LRE, and NCLB mandates that all students will be able to perform on grade level by 2014 (Carter, 2007). Previous research regarding inclusion has focused on classroom environment, teacher traits, but not on successful teacher practices that have lead to students with disabilities performing on grade level (Carter, 2007).

Students with disabilities have benefited from inclusion classrooms (Zollers, Ramanathan, and Moonset, 1999). Inclusion classrooms have allowed researchers to gain a better understanding on regarding students with disabilities react when placed in classrooms with their peers (general education settings). Students with disabilities learn from each other, in addition, their self-esteem increases when they are taught with their nondisabled peers (Idol, 2006).

Teachers and researchers have learned that students with disabilities have difficulty achieving at the same level as nondisabled students when placed in general
education classrooms without appropriate educational support and instructional modifications. NCLB mandates that all students will participate in standardized testing (Bowen & Rude, 2006). This mandate includes students with disabilities who are participating in inclusion classrooms. Therefore, students with disabilities must have appropriate testing accommodations in order to participate on standardized tests (Bowen & Rude, 2006). IDEA mandates that testing accommodations be provided to students with disabilities so that students with disabilities will be able to participate on standardized tests, and so that test results will lead to suitable and valid decisions, (Hollenbeck and Tindal, 1998).

Teachers in inclusion classrooms must be knowledgeable on how to appropriately assess students with disabilities (Johnson, 2007). Traditional classroom assessment cannot stand alone for students with disabilities (SWD). General education and special education teachers cannot assume that students with disabilities will be able to achieve at the same level of their nondisabled peers simply because they are in a general education setting. Inclusion teachers must be trained to appropriately assess students with disabilities in the general education classroom setting. Moreover, when students with disabilities are placed in inclusion settings and assessed appropriately in inclusion settings, they tend to perform better than SWD who were not placed in inclusion settings when using the co-teaching model on standardized tests (Johnson, 2007).
Statement of the Problem

Standardized test scores obtained by students with disabilities (SWD) have resulted in middle schools not making adequate yearly progress (GDOE 2010). According to the Georgia Department of Education (GDOE) if one subgroup does not meet the required objectives for meeting Adequate Yearly Progress (AYP), the entire school does not meet AYP (GADOE, 2010). SWD were taken out of their classrooms and taught in resource classrooms apart from nondisabled students. Research has shown that when SWD are taught with their nondisabled peers in a co-teaching setting their social skills and academic skills increase. In addition, previous research has shown that SWD are unable to achieve at the same level as their nondisabled peers and that SWD require accommodations and instructional modifications in order to be successful (Bowen & Rude, 2006; Johnson, 2007). Moreover, previously conducted studies have concluded that co-teaching is one recommended delivery model to meet the mandates of No Child Left Behind Act of 2001 (NCLB) in inclusion classroom settings. Research is inconclusive as to how inclusion classrooms aid with student academic success and academic achievement, as well as, how educational leaders can gain an understanding of what forms of assessments new inclusion teachers and novice teachers should implement in their classrooms to help students with disabilities meet NCLB mandates.

The current study will help administrators and teachers obtain a better understanding of how inclusion classroom settings can lead to SWD performing better academically than their disabled peers in a special education classroom. The current study will also show how special education teachers are assessing students with
disabilities in inclusion settings and provide current data to novice and veteran teachers. The collected data will provide schools, educators, administrators, and school systems, with best practices to use when working with students with disabilities in co-teaching settings. Therefore, the purpose of this study was to identify accommodations, modifications, and forms of assessments that inclusion teachers find useful in middle schools that made adequately yearly progress. These strategies may allow students with disabilities to be more successful on standardized tests, and increase the opportunities for middle schools to meet AYP.

**Research Questions**

The overarching research question that guided this study was: What assessment strategies are used with students with disabilities to meet AYP in inclusion classroom settings? The following sub-questions which were addressed in this study are:

1. What forms of assessments do teachers use in inclusion classroom settings to meet the needs of students with disabilities?
2. What accommodations used by teachers are useful in inclusion classroom settings to meet the needs of students with disabilities?
3. What modifications used by teachers are useful in inclusion classroom settings to meet the needs of students with disabilities?
Conceptual Framework

The researcher used to guide this study, the social learning theory. According to Jacobs (2008), the social learning theory suggests that the societal climate, the environment, people, and behaviors, can have a significant impact on the inclusion of students with disabilities (SWD).

Significance of Study

This study provides data on strategies used when educating students with disabilities in an inclusion classroom setting. The Individuals with Disabilities Education Act (IDEA) require that students with disabilities receive instruction in the Least Restrictive Environment (LRE), and the No child Left Behind Act (NCLB) requires that the academic performance of students with disabilities be measured with standardized tests. Research has determined that disabled and nondisabled students perform better academically and emotionally when placed in an inclusion setting; however, little is known as to how inclusion actually increases student achievement. Standardized test scores obtained by students with disabilities (SWD) have resulted in middle schools not making adequate yearly progress (GDOE 2010). The purpose of this study was to identify accommodations, modifications, and forms of assessments that inclusion teachers find useful in middle schools that made adequately yearly progress. Furthermore, these strategies may cause middle schools to meet AYP.

This study will inform administrators and educators how inclusion teachers, in Utmost County School System, are currently assessing students with disabilities in the classroom. Moreover, NCLB holds administrators accountable for all instruction; therefore, administrators must be able to provide current data and strategies to
inclusion teachers so that teachers can assist students with disabilities to achieve NCLB and IDEA requirements. The study will also provide best practices to middle schools, as well as, allow educational leaders to make professional development decisions regarding inclusion classrooms.

Previous studies and literature relate to implications on the current legislation and the use of inclusion. Moreover, few studies have been conducted that include instructional strategies used by inclusion teachers to assess students with disabilities in inclusion settings. The study provided data to teachers allowing them to obtain a better understanding on assessing students with disabilities in inclusion settings.

This study was important to the researcher because the researcher was interested in what accommodations, modifications, and forms of assessments were used in inclusion classrooms settings, in middle schools, that made AYP.

**Delimitations**

According to Creswell, (2003) delimitations are applicable to ethnography and experimental studies. Therefore, the researcher makes the following assumptions in conducting the study. First, the researchers’ study is limited to the state of Georgia and to Utmost County School System. Secondly, only schools located within Utmost County School system will participate in the researchers study. In addition, the participants in this study will be purposively chosen.

**Limitations**

The researcher makes several assumptions in conducting the study: First, the researcher makes the assumption that inclusion teachers who practice co-teaching will participate in the study with two or more years of teaching experience in the inclusion
setting. Second, the population is willing to provide a comment after having completed each survey question to provide clarity to the answers provided. Third, the researcher will purposively choose two of the three middle schools located in Utmost County School System; therefore, the data obtained will not be a representation of all middle schools in the state of Georgia. The researcher acknowledges there are other accommodation, modifications, and forms of assessments that exist and are being practiced in inclusion classroom settings, and that this study does not represent all of the available accommodations, modifications, and forms of assessments.

Finally, the participants may affect the anticipated results of the study if the participants do not respond to the survey, if the surveys are returned with incomplete information, a small number of participants respond to the survey, and inclusion teachers do not complete the survey.

Definition of Terms

AYP – Adequate Yearly Progress – A statewide accountability system mandated by the No Child Left Behind Act of 2001 which requires each state to ensure that all school and districts to make adequate yearly progress on standardized tests.

Accommodations – practices and procedures in the areas of presentation, response, setting, and scheduling that provide equitable instructional and assessment access for students with disabilities and English language learners.

Assessment – The act of collecting information about individuals or groups of individuals in order to better understand them.
Co-teaching – The special education teacher and the general education teacher provides service to students with disabilities and share teaching responsibilities for all students in the general education classroom for a full segment everyday.

FAPE – Free appropriate public education; special education and related services provided in the conformity with an IEP; are without charge; and meets standards of the State Educational Agencies (SEA).


IEP – Individualized Education Program: the written document that includes the required components as detailed in the IDEA.

Inclusion – A model of instruction when disabled students and non-disabled students are receiving instruction in the same classroom.

LRE – Least Restrictive Environment – the educational program that meets the student’s needs and is also located close to and is as similar as possible to that of the student’s same age peers.

Modifications – Changing, lowering, or reducing learning or assessment expectations

NCLB – No Child Left Behind – Federal legislation signed in 2001 that promised a quality education to every K-12 student, including students with disabilities, for the first time.

Non-disabled – general education students who have not been found eligible for special education services.

Special Education – The special education teacher provides service to the students with disabilities in a special education classroom
Students with disabilities – students who are eligible for services under IDEA and who have a current IEP.

Title I – provides financial assistance to local education agencies and schools with high numbers or high percentages of poor children to help ensure that all children meet state academic standards.

USDOE – United States Department of Education.

Summary

Teachers in inclusion classrooms must exercise best practices when assessing students with disabilities in an inclusion setting. Students with disabilities tend to have difficulty performing successfully on teacher made test, as well as, standardized tests. Therefore, Inclusion teachers practicing co-teaching models must be knowledgeable regarding how to assess disabled students appropriately in order to meet their needs in an inclusion setting. This study is essential to the field of education because it provides research based information and methods to administrators and inclusion teachers on how inclusion teachers assess the performance of students with disabilities. Moreover, these best practices may increase the opportunities for middle schools to meet AYP.

The researcher completed a quantitative study during the 2011-2012 school year. This was a descriptive study using survey data to obtain information on successful strategies used in inclusion settings attributing to students with disabilities performing on grade level. Prior to conducting the study, a pilot study was developed and conducted of administrators to establish the validity and reliability of the survey. After the pilot study was completed a survey was developed and teachers (with two or more years of teaching experience) participating in inclusion classroom settings were
asked to complete the survey. The researcher analyzed the data collected from the survey design and reported the findings.
CHAPTER 2

REVIEW OF RESEARCH AND RELATED LITERATURE

Inclusion provides students with disabilities an opportunity to participate in the classroom with other nondisabled peers. Researchers have often looked at the behaviors of students with disabilities (Carter, 2007; Idol, 2006). Furthermore, research is inconclusive as to what accommodations, modifications, and best practices lead inclusion students to academic success in middle schools (Carter, 2007; Idol, 2006). Moreover, this study provides a description of accommodations, modifications, and forms of assessments that co-teachers find useful in middle schools that made adequate yearly progress. The content of the literature review includes research based data on how inclusion classroom teachers have attributed to students performing on grade level, as well as, how educational leaders assess best practices of assessment in inclusion settings. The literature review was organized to include: the definition of inclusion, inclusion models, how students benefit from inclusion, the laws of inclusion, assessment practices (of general education students and students with disabilities), accommodations, modifications, and how educational leaders assess best practices in inclusion setting.

Definition of Inclusion

Research has shown that teachers and administrators perceive inclusion as one of the most effective models when teaching students with disabilities (Idol, 2006). Including nondisabled students with disabled students in the same class setting has shown to increase students’ self-esteem, social skills, and their morale for learning (Zollers, et al. 1999). Students learn from other students. Inclusion helps to create peer
tutoring experiences, cooperative learning, and flexible grouping. Placing students with disabilities back into the regular education classroom helps to decrease the negative thoughts and myths of students with disabilities (Idol, 2006). Nondisabled students begin to see disabled students as individuals, not focusing on their handicaps, but on how they are alike in many ways (Idol, 2006; Zollers et al. 1999).

Inclusion is defined as a model of instruction when disabled students and nondisabled students are receiving instruction in the same classroom, and at the same time (Idol, 2006; Zollers, et al., 1999). Furthermore, inclusion can also be defined as two teachers (one being a general education teacher and the other being a special education teacher) providing instruction in a general education setting to two different groups of students (disabled and nondisabled), or exceptional education students and general education students being taught in the same classroom (Idol, 2006). Moreover, Idol (2006) and Zollers et al., (1999) also defined inclusion as when students with disabilities are placed in age appropriate classrooms and are attending a general education school program 100% of the school day.

Gately and Gately (2001) defined co-teaching as the collaboration between general and special education teachers for all teaching responsibilities of all students assigned to a classroom. Teachers, according to Carter (2006) collaborate frequently in order to create and develop differentiated instructional activities to meet the needs of all students. In an effort to enhance the learning for all students planning, presentation, evaluation, and classroom management are shared (Gately & Gately, 2001). The researcher looked at inclusion classrooms using the co-teaching model in this study.
Inclusion Models

Although, both teachers are teaching in the same classroom, they are using different teaching models in order to reach the different learning styles of each student. Co-teaching models used in inclusion classroom settings, according to Masteropieri, Scruggs, and McDuffie (2007), and Friend, Hurley, & Shamber (2010) are: 1) One teach and one assist. This is usually when the general education teacher provides the instruction and the special education teacher observes or assists with keeping students on task. 2) Station teaching – when both teachers create centers within the classroom and provide direct instruction at each station; 3) Parallel teaching – when teachers divide the class to teach the same lesson, but in a different setting and to different groups. 4) Alternative teaching – when one teacher takes a group of students out of the classroom for instruction, and 5) Team teaching – when two teachers are instructing the class at the same time. The inclusion models help to meet the intent of special education which is to provide individualized education instructional programs, and allow each student’s individualized needs to be met according to their learning styles (Masteropieri et al., 2007). Inclusion provides direct instruction to both nondisabled and disabled peers, careful monitoring of student achievement, motivation to complete assignments, a warm learning environment, positive feedback and rewards, additional support when needed, and the belief that all children should be educated to their maximum potential (Cook & Schirmer, 2003). According to Begeny and Martens (2007), students tend to do better when participating in inclusion classes; and Siperstein, Parker, Bardon, and Widaman (2007), found that inclusion allows students with disabilities to be accepted by
nondisabled peers. Moreover, in order for inclusion to work, Purcell, Horn, and Palmer (2007) agreed that all staff members must have a shared vision.

Idol, (2006) identified the delivery models of inclusion as: consulting teacher services, cooperative teaching in the classroom, supportive resource programs, and instructional assistants. Indirect special education, according to Idol (2006), is a consulting teaching model. In indirect special education the special education teacher serves as a consultant to the general education classroom teacher. The special education teacher works directly with the classroom teacher to provide educational support to a targeted group of students. Idol (2006) defines the cooperative teaching model as the special education teacher and the general education teacher working together to provide a variety of co-teaching strategies in the same classroom for all of the students (disabled and nondisabled). Idol (2006) defined the supportive resource program model as when a student leaves the classroom to receive educational services in a different classroom and the student receives the majority of their instructional day in the general education classroom setting. Another model according to Idol (2006) is the instructional assistants model (paraprofessionals/aides). This model allows paraprofessionals to accompany students with disabilities while in the general education classroom (Idol, 2006). These models allow teachers to plan in order to meet the needs of both disabled and nondisabled students (Idol, 2006).

**How Students Benefit from Inclusion**

According to Begeny and Martens (2007), students with disabilities tend to perform better when they participate in inclusion settings. DeSimone and Parmar (2006) agreed that students with disabilities should be taught in inclusive settings. On
the other hand, Hundert (2007) determined that as nondisabled students interacted with disabled students their social skills increased. Furthermore, Hundert (2007) reported that students with disabilities tend to remain on task longer when working with nondisabled students. In addition, Jameson, McDonnell, Risen, Johnson and Polychronis (2007) determined that students with disabilities social skills increased during inclusion settings. Idol (2006), determined that inclusion services were not consistent in elementary settings, but were being offered more frequently in the middle and high school settings. When students were surveyed by Siperstien et al., (2007) it was concluded that nondisabled students tend to see intellectually disabled students as being average, but not as average as older adults. Middle school students were not as eager to befriend students with intellectual disabilities, and female intellectually disabled students were favored over males. Shapiro, Miller, Sawka, Gardill, and Handler (1999) completed a study on facilitating emotional and behavioral disordered (EBD) students into the general education setting. The study showed a significant consistency in EBD students managing their own behaviors. The teachers reported that after having learned about EBD students, they were now able to think positively about inclusion. Inclusion was stated to be an effective model of instruction for students with EBD (Shapiro et al., 1999).

Doran (2008) determined that co-teaching is beneficial for students with exceptionalities in the area of personal development; however, the relationship between inclusion and academic achievement is yet unclear. Carter (2007) agreed with Doran (2008) that previous research regarding students with disabilities have been related to classroom environment and teacher traits, but little information has been
given to students academic achievement. Austin (2001), Gately (2005), Masteropieri, Scruggs, and Graetz, (2005), Murawski (2005) and Dieker (2001) also determined that previous research on collaborative instruction addresses factors other than academic achievement. Swindler (2007) determined that in order for students with disabilities to reach their maximum potential academically, teachers must be properly trained.

**The Laws**

The United States Department of Education (2008) determined that the Federal No Child Left Behind (NCLB) legislation mandates that by 2014 all students will be performing on grade level. In order to meet the mandate of NCLB, school systems must begin to close the achievement gap between students with disabilities and their non-disabled peers. Moreover, federal legislation known as the IDEA requires students to be taught in the Least Restrictive Environment (LRE), and maximum extent possible with other non-disabled peers. Co-teaching instruction has been the service delivery model proposed that not only meets the requirements of LRE, but also an effective instructional teaching model that improves student academic achievement (Friend, Hurley-Chamberlain, & Shamberger, 2010; Idol, 2006).

Shaftel et al., (2005) determined that the 1997 amendment to Individual Disabilities Education Act (IDEA) and NCLB (2001) requires that all students including students with disabilities participate in statewide accountability assessment. IDEA and NCLB suggest that teachers include students with disabilities in the general education classroom to the maximum extent possible (LRE), and students with disabilities be included in general assessment. According to Shaftel et al., (2005) inclusion promotes an increase in instructional methods and places higher expectations
on students with disabilities who have for many years been exempted from accountability testing and measurement of their learning capabilities. Shaftel et al., (2005) also determined that general assessment were not always valid for students with disabilities. These students require in addition to a general curriculum assessment, alternative forms of test, as well as, a variety of accommodations and modifications that must be developed by teachers in order to show students academic achievement and measure student learning (Shaftel et al., 2005). Johnson and Kimball (2001); Brown (2001) defined testing accommodations (extra time, frequent breaks, oral presentation of non-reading comprehension items, and dictation of answers as needs exists) as policies that allow students to participate in state level assessments. Shaftel et al., (2005) agreed that in order for modifications and accommodations to be implemented on any test these modifications and accommodations must be used daily in the classroom by the teacher when instructing disabled students. Moreover, Hollenbeck and Tindal (1998) defined test modifications as a change in a test (how it is given, how it is completed, or what is being assessed). Johnson and Kimball (2001) and Hollenbeck and Tindal (1998) agreed that testing accommodations do not change a test, but allow students to participate in taking a test.

Assessment Practices

According to Zhang et al., (2003), and Hollenbeck and Tindal (1998) teachers are expected to be competent in test and measurement. This is a deficit area for teachers and most teachers’ knowledge about test and measurement comes from trial and error or learning that has taken place in the classroom (Hollenbeck and Tindal, 1998; Zhang et al., 2003). Zhang et al., (2003), and Hollenbeck and Tindal (1998)
determined that special education teachers were not well informed about assessment and assessment procedures. Using teacher made test to assess students with disabilities may create problems when teachers are not constructing test appropriately. Test construction requires teachers to be knowledgeable of test reliability and validity (Zhang et al., 2003, and Hollenbeck et al., 1998). Zhang et al., (2003) and Hollenbeck et al., (1998) defined test reliability as the consistency and stability of a student’s test scores from one administration of a test to another. In addition, Hollenbeck and Tindal (1998) and Zhang et al., 2003) defined test validity as a test which covers the content area it is suppose to assess or as a test which is compared to performance on other assignments such as: homework, quizzes, class projects, class participation, laboratory experiments, oral presentations, and teacher observations. Construct validity is when a teacher identifies the content on which the test is based and determines or disputes the assumptions using logic, teachers’ observations, or research (Hollenbeck & Tindal, 1998). Teachers should remember according to Hollenbeck and Tindal (1998) when developing a test to include what was taught, as well as, how the content has been delivered. Students with disabilities can master academic content with appropriate testing modifications and accommodations; however, disabled students may have difficulty with the format of the test (Hollenbeck and Tindal, 1998). Therefore, inclusion teachers must collaborate with each other when creating teacher made test in an inclusive setting to ensure that students with disabilities can be successful (Hollenbeck & Tindal 1998).

According to Notar, Zuelke, Wilson, & Yunker (2004) teachers have generally assessed students with the following formats: true false test items, a seven item
matching exercise, a four response multiple choice test, any test item format that requires solving a problem, analyzing, and synthesizing data, and evaluation examples. Teachers have also included test such as short-answer and essay type test questions. Teacher made test generally are used to assess students performance and measure a students’ achievement level from the comprehension, application, analysis, synthesis and evaluation viewpoints (Notar et al., 2004). Notar et al., (2004) also determined that the major advantage of teacher made test is that it allows the teacher to fit the test item to a particular objective. Broderick, Mehta-Parekh, and Reid (2005) agreed that students with disabilities perform better when they are involved in differentiated instruction. Differentiated instruction involves a comprehensive approach to teaching that enables all students to be successful (Broderick et al., 2005).

Butler and McMunn (2006) and Notar et al., (2004), agreed that a variety of assessment practices must be used in the classroom to assess student learning. Butler and McMunn (2006) defined assessment as collecting data on individuals or groups of individuals to gain understanding about them. Assessment allows one to provide feedback to students and to act as diagnostic and monitoring tool for classroom instruction (Butler & McMunn 2006). The process of assessment is ongoing whereby teachers and students are interacting with each other in order to increase learning. Butler et al., (2006) agreed that assessment requires the use of various teaching strategies to make appropriate decisions regarding instruction and collect data about students’ performance in order to diagnose certain problems, monitor students’ progress, and provide feedback for academic achievement. Notar et al., (2004) and Butler and McMunn (2006) agreed that in order to gain true assessment data on
students’ ability levels teachers must use best practices that include written test, interviews, observations, and performance tasks. In addition, according to Butler and McMunn (2006) assessment helps to answer questions such as did the students achieve the standards that were taught? If the standards were not achieved by the students, will feedback that is provided by the teacher assist in improving the students’ achievement level? How effective was the teachers’ instruction and how can the instruction be improved to meet the overall needs of the students? Assessment should be shared with students and teachers alone with student commentary indicating a need for improvement. This will allow students an opportunity to examine new learning strategies and teachers to plan for new instructional methods and techniques targeting the strengths and weaknesses of the student (Butler & McMunn 2006).

Butler and McMunn (2006) agreed with Frey and Schmitt (2007) that teachers should practice other methods of evaluation besides paper and pencil such as using a portfolio or a snapshot of student work. Portfolios allow teachers to evaluate students using other forms of evaluation and allow teachers to evaluate or make judgments on the quality of the assessment. According to Butler and McMunn (2006) portfolios provide a variety of students work samples and provides evidence of what students know and do not know. In addition, portfolios allow teachers to assess and evaluate examples of good evidence provided by students. Evaluation, according to Butler and McMunn (2006) is a summative process of assessment, which can be if done both formatively and summatively, if done appropriately. Teachers use formative assessment on a daily basis in the classroom to gain knowledge of students learning; on the other hand, summative assessment is used as a culminating event to gain
mastery of students content, knowledge, and skills (Butler & McMunn 2006). According to Butler and McMunn (2006) teachers should include good snapshots of students work samples in order to report accurate summative assessments. Furthermore, Butler and McMunn (2006) stated diagnostic assessment is a type of assessment used to determine a student’s knowledge, skills, and misconceptions of standards before teachers develop their plans for the instructional day. Butler and McMunn, (2006) determined diagnostic types of assessment to be useful in middle schools when assessing students’ knowledge on vocabulary or skills needed to be taught. Teachers must understand the terminology related to assessment before assessment practices can be appropriately used (Butler & McMunn 2006).

Notar et al., (2004) and Butler and McMunn (2006) agreed that assessments may also be defined as a method or a technique depending upon the task that is expected of the student. Some assessments ask students to choose a response from a given list; however, these types of assessment are considered, according to Butler and McMunn (2006) and Notar et al., (2004) as being used by all classroom teachers, as well as, on standardized test. Selected-response, which would be considered a more traditional paper and pencil test may include: true-false quiz, multiple choice test, matching exercises, fill-in-the blank, and activities whereby students are given a word bank to choose the correct answer (Butler & McMunn 2006; Notar et al., 2004). Butler and McMunn (2006) determined that selected-response types of assessments where students are given an option to select, “I don’t know response”, may have limited effects on students with creative minds, who can think of reasons that many choices could possibly be the correct answer. On the other hand, according to Butler and
McMunn (2006) selected-response types of assessments could cause a student to guess the correct answer without a true understanding of the concepts and standards that were taught in the classroom. For these reasons selected-response should not be the only form of assessment used to measure a students’ true academic ability.

Assessments designed or developed to allow students to create or construct a response and reply to a question or a given prompt are considered alternative types of assessments (Butler & McMunn 2006; Notar et al., 2004). These types of alternatives assessments to traditional types of assessment are known as selected-response. Constructed response types of assessments may include: short-answer and essay questions whereby students are expected to respond to questions creating their own ideas and using their own thoughts (Butler & McMunn 2006; Notar et al., 2004; Zhang & Berry-Stock 2003). Teachers are encouraged to use more types of assessments that require students to provide constructed response (Butler & McMunn 2006; Notar et al., 2004); however, without clear targets of whatever type of assessments teachers may choose to use, assessments can easily become activities that will go absolutely nowhere and become useless to students’ academic achievement level (Butler & McMunn 2006). In addition, teachers must be careful to design assessments that only measure targets, standards, and skills that have been taught and made clear to the students (Butler & McMunn 2006).

Zhang and Burry-Stock (2003); Hollenbeck and Tindal (1998), and Butler and McMunn (2006) agreed that when assessments are reliable they provide consistency of students’ test scores each time the test is administered, regardless of whom the evaluator may be, and even though there are various versions of the assessment.
Georgia Department of Education (GDOE, 2009) requires students to take the criterion-referenced test (CRCT) which has been proven to be valid and reliable assessment tool of what students should have been taught in the classroom (GDOE, 2009). Butler and McMunn (2006) defines a CRCT as an assessment that provides information on how well students have mastered specific goals and standards. Furthermore, the CRCT was developed to show what students should have learned in the classroom setting (Butler & McMunn 2006; GDOE, 2009).

According to Fisher and Frey (2007), teachers should check for understanding of all students. Furthermore, Fisher and Frey (2007) stated that students may be apprehensive about responding to questions and not to questions such as: did you get that, does everybody understand, and does that make sense? Fisher and Frey (2007) determined that students will not respond to such questions as mentioned above because they do not want to be negatively identified by their peers. Students tend to sit quietly with no response; therefore, teachers, according to Fisher and Frey (2007) should provide students with a brief scenario and ask the students to predict and explain the outcome. Teachers should regularly check for students’ understanding.

When teachers check for understanding regularly students will become aware of how to prepare and monitor for their own understanding Fisher and Frey (2007). Teachers need to know that checking for understanding is not a final examination or a state-wide achievement test Fisher and Frey (2007). Teachers should be aware that the purposes of state-wide assessments are designed to provide feedback and information as to how students performed after instruction (Fisher & Frey 2007). Fisher and Frey
(2007) identified that at-risk schools should incorporate checking for understanding in order to determine students’ level of understanding of standards.

Fisher and Frey (2007) researched and determined that educators should at all times differentiate instruction to meet the needs of all students. Differentiation of instruction involves, according to Fisher and Frey (2007) that teachers determine what to differentiate such as the source, the process, and the product, as well as, what criteria does the teacher select such as: readiness skills, interests, and learning style. Differentiated planning should include meaningful tasks, flexible grouping, ongoing assessments and frequent adjustments to instruction to ensure that teaching and learning is taking place. Butler and McMunn (2006) and Fisher and Frey (2007) agreed that teachers should use a wide variety of assessment systems to check for students’ understanding and to know whether or not their instructional strategies, accommodations, and best practices are working for all students. Teachers should make certain that students are able to explain their understanding of teaching and learning by using a variety of methods to check for student understanding. Therefore, teachers should provide various students with various techniques to explain and perform tasks over standards which have been taught (Fisher & Frey 2007).

GDOE (2009) agreed with Butler and McMunn (2006) and Fisher and Frey (2007) and the National Mathematics Advisory Panel (USDOE, 2008) who suggests that all instruction should not be solely “student centered” and “teacher directed”. According to National Mathematics Advisory Panel (USDOE, 2008) studies, have proven that cooperative learning approaches have shown to improve students’ computation skills. This strategy requires teachers to heterogeneously group all
students and allow them to assist each other. Furthermore NMAP (USDOE, 2008) research have shown that Team Assisted Individualization (TAI) which involves a team approach that allows students to act as facilitators and teachers to guide them as needed during their cooperative learning experience is an effective teaching strategy. The effects of TAI on students’ understanding and problem solving has been researched and documented as being significantly effective for all students (USDOE, 2008). The NAMP agreed with Butler and McMunn (2006); Fisher and Frey (2007) that teachers must use regular formative assessments in order to improve student learning. In addition, the use of real world contexts to introduce mathematics will have a positive effect on students assessment scores; however, research has proven that students performance on assessments focused towards mathematics applications such as computation, simple word problems, and equation solving has not been shown to improve student mathematics performance (USDOE, 2008). On the other hand, when teachers provide clear models for solving a mathematical problem using a variety of examples and practices the outcome has proven to be positive for students with disabilities, as well as students without disabilities (USDOE 2008). Research, according to NAMP (USDOE, 2008) has also shown that instructional software provides positive effects for students with disabilities, as well as, their non-disabled peers. Technology-based drill and practice and technology tutorials can improve students’ performance in all areas of mathematics. In, addition, research has shown that computer software, in the area of mathematics supports disabled and non-disabled students skills in math concepts, math applications, and problem solving (USDOE, 2008).
Research according to the National Reading Panel (USDOE, 2000), indicates that teachers should teach all students to read using Phonemic Awareness (PA) reading techniques. Phonemic awareness allows students to increase their spelling skills, as well as, manipulate spoken syllables and words. When students in inclusion settings are trained to use PA appropriately, they benefit not only from reading words, but with reading comprehension and fluency (USDOE, 2000). Furthermore, NRP (USDOE, 2000) has proven that students who have problems reading and are considered disabled have shown significant improvement in their reading skills when they participate in classrooms where teachers practice PA teaching strategies. On the other hand, NRP (USDOE, 2000) has also determined that disabled readers, as well as, non-disabled readers benefit in the area of spelling when participating in PA. NPR (USDOE, 2000) indicated that when students practice PA more than 20 hours a week the students’ results will increase. Non-disabled students and disabled students show an increase in their ability to read words and spell words when phonics instruction was introduced in the classroom. However, high school students did not show an increase in reading comprehension (USDOE, 2000). NPR determined that fluent readers are those students that are able to read orally with speed, accuracy, and the proper expression. Fluency, according to NPR (USDOE, 2000) is often not practiced in teachers’ classrooms. When students read text in a lazy and inefficient manner, according to NPR (USDOE, 2000), it is difficult for the students to remember what has been read and the ideas that have been expressed in the reading of the text. Reading practice helps students to increase their reading fluency, as well as, guided repeated oral reading and independent silent reading (USDOE, 2000). Research
analysis from the NPR (Anonymous, 2000) indicates that when instruction encourages students to read silently, it has no impact on the students’ ability to improve their reading skills. In addition, data from the NPR (USDOE, 2000) suggest that reading comprehension is extremely important to the academic reading skills of all students. Furthermore, NPR (USDOE, 2000) determined that reading comprehension is not only important to students’ academic learning, but also to their lifelong learning as well. Students must have the cognitive ability to process that which has been read, as well as, their ability to interact with text that is being read. Moreover, teachers must be able to teach students to develop their comprehension abilities. In addition, teachers must have obtained instruction in teaching students to read appropriately (USDOE, 2000). NPR (USDOE, 2000) determined that teachers need vocabulary instruction in order to assist students with reading problems. Growth in reading development means continuous improvement in word knowledge (USDOE, 2000). When students encounter words that are unfamiliar to them, and if the words are in their vocabulary, the reader will be able to understand the unknown vocabulary (Anonymous, 2000). According to NPR (USDOE, 2000) student readers with a large vocabulary are able to make sense of unknown text using their vocabulary skills. The NPR (USDOE, 2000) suggest that reading comprehension instruction include comprehension monitoring, where readers learn how to be aware of their understanding; cooperative learning, where students learn reading strategies together; use of graphic and semantic organizers, that may include story maps, as well as, graphic representation. In addition, NPR (USDOE, 2000) determined that teachers must include question answering, where student readers answer questions developed by the teacher and
receive immediate feedback, as well as, story structure, where student readers are taught by their teachers to use the structure of the story as a means of assisting them to recall information to answer questions about what the student readers has read. NPR (USDOE, 2000) also researched and determined that teachers must incorporate summarization, where student readers are taught by their teachers to integrate and generalize from the text that has been read. NPR (USDOE, 2000) suggests that teachers should use a variety of reading comprehension strategies when teaching struggling readers. Teachers should also teach vocabulary directly and indirectly and repetition is extremely important for students with reading problems. Furthermore, NPR (USDOE, 2000) determined that when teachers depend on single vocabulary instruction methods and strategies it will not lead to optimal results in student learning. Teachers must be trained to teach reading comprehension skills and be knowledgeable of reading comprehension strategies in order to teach disabled and nondisabled student readers appropriately (USDOE, 2000).

NPR (USDOE, 2000) determined that previous computer technology was not capable of effectively delivering adequate reading instruction. Moreover, recent studies have proven that computer technology used for reading instruction has improved student reading performance. Newer reading computer programs have speech recognition capabilities, as well as, multimedia presentation functions which aim at improving students’ reading comprehension skills. Developments in the internet, linking schools and instruction have tremendously improved (USDOE, 2000). According to the NPR (USDOE, 2000) computer technology and reading instruction have shown positive results in students reading comprehension skills.
Accommodations

IDEA of 1997 requires that all states include students with disabilities (SWD) in state and local educational assessments, as well as, accountability systems (Cox, Herner, Demczyk, and Nieberding, 2006). IDEA (1997) also ensures that school systems will include SWD with appropriate accommodations, when necessary (Cox et al., 2006). According to Cox and Nieberding (2006), testing accommodations allow SWD to participate in statewide testing and demonstrate their knowledge and abilities on statewide assessments. Washburn-Moses (2003) and Cox et al., (2006) agreed that all students must participate in state and district-wide assessments. Washburn-Moses (2003) defines accommodations as any change to the standard test format to assess an individual’s ability level, and not their disabilities. Although, testing accommodations may vary, according to Washburn-Moses (2003), testing accommodations generally fall in of the four categories: presentation, response, setting, and timing/scheduling. Presentation refers to an adjustment of how the test is presented or directions/questions are read. Response refers to an adjustment made as to how students respond to or answer an assessment item. Setting refers to an adjustment made where the assessment is taken, and scheduling refers to an adjustment made to the amount of time allowed on the assessment (Washburn-Moses, 2003). Moreover, Title I requires any testing result obtained on the performance of SWD be included in school-wide accountability calculations. NCLB of 2001 requires SWD to perform to grade level standards (Cox et al., 2006). Salend (2008) Cox et al., (2006) and Washburn-Moses (2003) agreed that most SWD will participate in high-stakes testing programs that are aligned with statewide learning standards and that SWD will take
the same general grade–level assessments as their classmates without disabilities. However, Salend (2008) further states that there are some issues related to testing accommodations. These issues include, but are not limited to schools complying with NCLB and IDEA, differentiating between high-stakes (standardized) and teacher made test, addressing disproportionate representation such as: who will receive which testing accommodation, understanding the elements of valid testing accommodations, ensuring the implementation of testing accommodations, examining issues of fairness (appropriateness and effectiveness), and considering the acceptability of or stigma of testing accommodations (Salend, 2008).

The Georgia Department of Education (GDOE, 2009), defines accommodations as practices and procedures in the areas of presentation, response, setting, and scheduling that provide equitable instructional and assessment access for students with disabilities and English language learners. Accommodations reduce or eliminate the effects of a student’s disability or limited English proficiency. Accommodations do not provide an unfair advantage and do not reduce or change learning expectations. Accommodations provide access for demonstration of student achievement and are developed to allow student participation. Accommodations do not guarantee proficiency and should never be selected solely as a mean to help, ensure, or promise student proficiency. Accommodations must be required by the student in order to participate in statewide assessments. In addition, accommodations must be provided during routine instruction and assessments in the classroom. Moreover, accommodations must be utilized both before and after the state tests are administered (GDOE, 2009). Many accommodations determined to be appropriate for instruction
are not appropriate for assessments. It may be appropriate to use some instructional accommodations to provide access to grade level content, but these accommodations should be faded away or deleted from the students’ instructional day over time. Teachers must remember that the goal of accommodations is to provide meaningful measurement of what the student has learned as a result of instruction.

In Georgia, according to GDOE (2009), accommodations may not alter, explain, simplify, paraphrase, or eliminate any test item, reading passage, writing prompt, or choice option; provide verbal clues, or gestures, or make suggestions that hint at or give or elude to the correct response to the student. Only state-approved accommodations may be used on statewide assessments (GDOE, 2009).

Accommodations, according to GDOE (2009), should never alter target skills. Target skills are those skills and concepts that test or statewide assessments are designed to measure. On the other hand, access skills are those skills needed by a student to demonstrate knowledge and application of the target skills. Accommodations are designed to assist students with disabilities (SWD) with access skills (GDOE, 2009). When teachers develop accommodations, they should consider the purpose of the test and what it is designed to measure. Accommodations are tools that provide students with access and help them demonstrate what they have learned. GDOE (2009) states that it is important to consider the type of accommodation needed for SWD. If the incorrect accommodation is used, the job will not be completed by the SWD. Moreover, if the student has not received practice with the specific accommodation then the accommodation will not be effective and may not provide a true academic picture of the student ability level (GDOE, 2009). GDOE (2009)
reminds teachers that it is important to match the right student to the right accommodation. When teachers are making decision concerning accommodations teachers should consider the students characteristics, disability, and language proficiency levels, as well, as how the students’ characteristics interact with the specific content area. Decisions should be made individually when developing accommodations for SWD and teachers must remember that each accommodation can differ by content area according to the students needs (GDOE, 2009). GDOE (2009) suggest that educators should consider each students need of any accommodation prior to giving it to them, as well as, the student’s experience with the accommodation. Accommodations should never be developed and implemented just prior to an assessment (GDOE, 2009). Educators should also consider whether the accommodation will be of benefit to the student and the student’s feelings and beliefs about the accommodation.

According to GDOE (2009), standard accommodations should provide access to the student in order to demonstrate their achievement of target skills. In addition, standard accommodations should never alter or encroach on the construct measured. Moreover, SDW must require the accommodation chosen and the use of the accommodation must be implemented and practiced during routine classroom instruction and assessments. Conditional accommodations, according to GDOE (2009), are more expansive accommodations that provide access for students with more severe disabilities. Conditional accommodations are given to students who are not able to access the assessments to demonstrate this achievement without support. Conditional accommodations should be used sparingly and must be considered when
interpreting SWD assessment scores (GDOE, 2009). GDOE (2009) requires that SWD qualify for conditional accommodations and receive specific goals that address the deficits which necessitate conditional accommodations. There are three accommodations that are considered conditional for the CRCT and they are: signing reading passages for SWD, oral reading of the reading passages on the CRCT, and use of a basic function calculator on the math section of the CRCT. GDOE (2009) requires educators to use guidance when using accommodations. GDOE (2009) also requires educators to protect and provide the accommodations for students who truly require them. Accommodations should always foster independence and not dependence (GDOE, 2009).

GDOE (2009) provides guidance to educators when using conditional accommodations. The use of a reading conditional accommodation for the CRCT reading section can only be used where the student had a specific disability that severely limits to prevent him or her from decoding text and any level of difficulty, even after varied and repeated attempts to teach the student to read. GDOE (2009) states that the student is considered a non-reader and not simply a student that reads below grade level. GDOE (2009) also states that the students had access to printed material only through the aide of a reader or another electronic format during routine classroom instruction. According to GDOE (2009) reading of passages is restricted to grade three thru eight. Students in the primary grades are learning to read; therefore, the curriculum standards in these grades include decoding and fluency. These are two important skills and are completely compromised when students are non-readers. It is imperative that educators have an accurate measurement of students’ reading skills so
that problems can be identified and appropriate services can be provided if needed (GDOE, 2009). Reading of test questions, on the other hand, is considered a standard accommodation, according to (GDOE, 2009). Most students who require reading accommodations are struggling readers and read below the grade level according to GDOE (2009). Therefore, reading of the test questions reduces the reading load and allows the student to focus on the passages. GDOE (2009) reminds educators that state-wide assessments are not attempting to measure reading comprehension on content area test such as English, Mathematics, Science, and Social Studies; therefore, it is permissible to read any prompts that accompany the test items. GDOE (2009) also cautions that reading of test questions should only be done when appropriate, as well as, IEP teams must address the reading of the reading passages in SWD goals and objectives area in the IEP.

GDOE (2009) provides guidance on the use of basic function calculators for SWD. GDOE requires that the use of a math conditional accommodation may be considered for the mathematics portion of the CRCT when the student has a specific disability that severely limits or prevent his or her ability to calculate mathematically, and after varied and repeated attempts to teach the SWD has been tried and found to be impossible. In addition, GDOE (2009) requires that the SWD can only perform mathematically through the use of a calculator and the student uses the calculator during routine classroom instruction. GDOE (2009) refers to a basic calculator as being one with the following computational functions: addition, subtraction, multiplication and division. Many basic function calculators also have square root and
percentage functions; however, a basic function calculator is not a scientific calculator (GDOE, 2009).

**Modifications**

Research has determined that students with disabilities can be successful in the general education classroom setting when teachers provide appropriate modifications (Biddulph, Hess, & Humes, 2006; GDOE, 2009). Students with learning disabilities will agree to participate in classroom instruction when their learning needs are understood (Biddulph et al., 2006). According to Biddulph et al., (2006) teachers participating in inclusion settings can be successful in reaching students in the general education classroom when they provide copies of notes to students with disabilities instead of having students take notes, read tests to students, seat students with disabilities’ in the front of the class, provide a decreased amount of homework, have students with disabilities sit away from windows, provide examples to complete assignments and homework, allow students to sit by other students they feel comfortable with, have books available on tapes, use multiple choice test when testing students with disabilities, allow students with disabilities to take test in quiet environments, provide extended time on classroom and homework, create study guides, and provide teacher assistance. According to Wilson (2008) co-teaching requires teachers to agree to a strong marriage, partners sharing, and an ongoing planning of all teachers involved creating modifications and instructional strategies to meet the students’ needs. According to Gunter, Reffel, Rice, Peterson, and Venn (2005) inclusion teachers should discover their students’ interest when creating instructional activities and allow their students to take part. Gunter et al., (2005)
concluded that students with visual learning styles should be introduced to graphic organizers, and encouraged to participate during classroom instruction. When inclusion teachers use a variety of visual presentation materials and graphic organizers, it allows students with disabilities to personalize concepts and create concrete understanding (Gunter et al., 2005). Gunter et al., (2005) also determined that inclusion teachers participating in middle school settings should incorporate the use of venn diagrams, mnemonic devices, and dry erase boards during their instructional day. Instructional methods allow students in inclusion classrooms with multiple learning styles a greater opportunity for mastery (Gunter et al., 2005).

Educational Leaders Assessment of Best Practices

Bays & Crockett (2007) determined that educational leadership has been researched since the beginning of public schools, and that special education has become a major interest to school leaders. No Child Left Behind Act of 2001 (NCLB) requires school leaders to be responsible for the successful learning of all students (Bays & Crockett, 2007). In addition, the role of educational leaders has been reformed by Individual Disabilities Education Improvement Act (IDEIA, 2004) and NCLB (2001) Bays and Crockett (2007). Moreover, special education leaders who were once accustomed to the delivery of instruction and related services of students with disabilities (SWD) are now more so involved than ever in helping to close the achievement gaps of general education students and special education students (Bays & Crockett, 2007). According to Bays and Crockett (2007), NCLB (2001) requires that students with disabilities learn the same academic content as students without
disabilities. Therefore, effective leadership practices and instructional strategies must continue to lead the delivery of instruction (Bays and Crockett, 2007).

According to Otto and Arnold (2005) special education teachers lacked adequate support of school administrators due to school administrators not being knowledgeable of inclusion programs. Administrators provide support to inclusion teachers when they are: understanding of teachers, provide scheduled time to complete special education paper work, scheduled time for collaboration and planning of general and special education teachers, provide meaningful staff development opportunities, provide smaller case loads and classes to special education teachers, and provide appropriate technology and resource materials for students with disabilities (Otto & Arnold, 2005). Furthermore, Otto and Arnold (2005) stated that when administrative support is not properly provided it may lead to a retention of special education teachers. Carter (2007) determined that school administrators must be knowledgeable of current inclusion strategies and best practices in order to be successful school administrators and fulfill the requirements of NCLB (2001) and IDEA (1975).

According to Boscardin (2007), school administrators are challenged to redefine leadership in many ways that support the use of administrative practices and link administrative interventions to educational services for SWD. Leadership that embraces research-based practices allows for new opportunities in collecting data related to student achievement, as well as, determining leadership practices that lead to positive student outcomes, (Boscardin, 2007). Administrative interventions such as: support teaching and learning are methods that have been researched to provide effective school outcomes for all students. Boscardin (2007) determined that the
question about what makes special education special has not been explicitly addressed. Therefore, educators trained in the leadership of administration of students with disabilities should be able to effectively monitor the delivery of services to students who are disabled, as well as, support teachers who are providing services in a special education environment (Boscardin, 2007).

According to Boscardin (2007) general education and special education must be joined as a dual service delivery model. Joining the knowledge and skills of general education, leaders and special education teachers will allow leadership teams to benefit from inclusion. All administrators should support teachers by providing professional development opportunities, continuous monitoring of instruction and teacher commentary which will improve teaching and learning of inclusion programs (Boscardin, 2007).

According to Boscardin (2007) evidence-based is defined as: “selecting leadership approaches that promise better outcomes for students under certain cultural and ecological conditions.” When leaders are responsive to cultures and context, they facilitate the process of finding answers to important questions between leadership and student outcomes (Boscardin, 2007). Educational leaders should be able to identify, clarify, and prioritize critical questions and gather data that increase the probability of targeting areas in need of change. This will lead to improved achievement outcomes for SWD. On the other hand, in order for evidence base leadership practices to become a natural link between educational leaders and SWD outcome, there must be a transparent understanding between educational leaders and teachers who provide services in inclusion settings, (Boscardin, 2007).
Boscardin (2007) stated that responsive leadership interventions are needed to create changes in administrative practices. Furthermore, Boscardin (2007) determined that the concept of using specific interventions to influence learning is most widely used when instructing disabled students in an inclusion setting. Moreover, Boscardin (2007), stated that educational leaders should use research base data when involving teachers and data driven decision making. This will allow administrators to link administrative practices to SWD educational outcome.

According to Boscardin (2007), administrators must incorporate interventions to improve teaching in ways that lead to improved achievement of SWD. Administrators should provide teachers with ongoing staff development and other educational services to assist with improving the knowledge of teachers in inclusion settings. Boscardin (2007) also noted that administrators must monitor student progress on a regular basis in order to improve the delivery of instruction in inclusion settings. Administrators must take an active role and focus on student progress in inclusion settings (Boscardin, 2007).

IDEA (2004), suggests general educators to become more actively involved in leadership when assessing the performance of students with disabilities by using continuous progress monitoring. This monitoring must pinpoint students with disabilities in an inclusion setting, as well as, nondisabled peers in an inclusion setting, (Boscardin, 2007). When administrators provide continuous monitoring of inclusion classrooms, it allows the administrator to validate the instruction within the inclusion classroom, as well as, make leadership decisions. This data will assist administrators when evaluating the delivery of instruction in inclusion settings.
Ongoing data collection, according to Boscardin (2007) allows administrators flexible procedures when developing administrative strategies to implement within the inclusion school setting. Good administrative policies provide written documents that guide inclusion teachers when implementing instructional practices in the inclusion setting (Boscardin, 2007).

Boscardin (2007) and Kirkland (2008) agreed that educational leaders help teachers to examine inclusion programs when they share their vision of learning. Educational leaders should also arrange opportunities for general education teachers to observe special education teachers in practice. In addition, educational leaders initiate classroom staff development opportunities when they incorporate coaching, co-teaching, and reflection in the school environment. Educational leaders should model and coach teachers in inclusion settings and support them as much as possible. Educational leaders must be aware that new teachers can be coached by veteran teachers in order to make inclusion settings successful. According to Kirkland (2008), educational leaders and principals must support their appropriate curriculum and instruction to establish a desired environment for inclusion education. Teachers need support to implement and maintain new methods that impact student achievement such as differentiated instruction. Inclusion teachers need support to make sure they are using the appropriate techniques correctly.

When educational administrators are assessing best practices in inclusion settings, according to Kirkland (2008), they should create opportunities for general and special education teachers to volunteer for committees that serve the needs of all students. Educational leaders can encourage teachers to share their chores and
responsibilities. Boscardin (2007) and Kirkland (2008) agreed that educational leaders should begin an agreement to work together on instructional opportunities. Kirkland (2008) observed that when educational leaders guide teachers to work together creatively to overcome challenges and problems and to anticipate conflict and handle it in a constructive way, this practice helps to improve collaboration among teachers in inclusion settings (Kirkland, 2008).

Educational leaders can share co-teaching models with inclusion teachers through staff development programs. Parallel teaching, supportive teaching, and complementary teaching are easy practices for teachers with limited co-teaching experiences, (Kirkland, 2008). Idol (2006) and Kirkland (2008) agreed that educational leaders still lack in being well-grounded in the administration and assessment of inclusion classrooms. Kirkland (2008) also determined that staff development topics are needed when planning for inclusion programs. Educational leaders can support inclusion teachers by providing staff development topics on cooperative teaching and ways to use paraprofessionals in inclusion programs. Educational leaders must support opportunities for teachers and paraprofessionals to attend conferences on continuing education events outside of the school district.

Kirkland (2008) stated that educational leaders produced their best results when they empower teachers in inclusion settings to participate in collaboration. Instructional leaders can encourage teachers to reflect on the instructional and curricular decisions taking place in their classrooms when they allow inclusion teachers to reflect on their educational experiences.
According to Kirkland (2008), Miami-Dade County schools in South Florida, educational leaders helped general and special education teachers meet regularly to plan instruction and curricular support for all students. Teachers were given a common planning period to develop long term plans for all students with disabilities. In addition, the meeting assisted to smoothly transition SWD from middle school inclusion programs to high school inclusion programs.

Kirkland (2008) determined that secondary schools in Chicago, Illinois often excluded students with disabilities from participating in general education environments. Kirkland (2008) also researched and determined that teachers in the Chicago, Illinois school system worked in isolation. In addition, teachers in inclusion programs seldom interacted with their peers to solve programs or share effective processes. However, according to Kirkland (2008), this situation changed when a school based planning process was initiated. Educational leaders and their faculty cooperatively reviewed the way services has been provided to SWD and designed a modified instructional plan that met all students’ needs.

According to Kirkland (2008), this new plan calls for educational leaders to determine whether there was an efficient use of school resources, provided relevant staff development meetings, and made sure that common weekly planning time was provided for teachers in collaborative settings. Educational leaders also ensured that SWD were receiving needed supports and services while they were in the general educational classroom. Principals and educational leaders must conduct a self analysis of current support systems in order to be effective in inclusion classrooms (Kirkland, 2008).
According to Kirkland (2008), educational leaders should find ways to involve teachers in the decision making process by allowing them to collaborate on conflicting issues. Kirkland (2008) stated that teachers develop a sense of responsibility in others when educational leaders assist them to resolve and solve problems collaboratively. Educational leaders should also encourage paraprofessionals to keep abreast of best practices, attend conferences, and reflect on what they have learned; principals and educational leaders should treat paraprofessionals like teachers by making sure that they have the knowledge base to understand how inclusion classrooms work (Kirkland, 2008). Paraprofessionals, according to Kirkland (2008), should be treated as involved team members in lesson planning and parent participation when accompanying teachers in inclusion settings. Educational leaders must allow inclusion programs to take place in incremental steps and celebrate the small successes during inclusion programs (Kirkland, 2008).

According to Kirkland (2008) and Boscardin (2007), teachers learn to walk by taking baby steps when participating in inclusion programs. Educational leaders must ensure that inclusion teachers build their classrooms on research based best practices. Principals and inclusion teachers should plan to celebrate for visible improvements in student performance. Educational leaders must recognize and reward all students in inclusion classrooms (Boscardin 2007; Kirkland 2008). According to Kirkland (2008), educational leaders act as a catalyst for change when implementing inclusion programs. As educational leaders catalyze change, they make the vision tangible reminding inclusion teachers of the values they are striving for and show inclusion teachers how the future might look (Kirkland, 2008). Kirkland (2008) believes that
when educational leaders empower inclusion teachers to become a part of decision making processes, it helps to remove barriers to co-teaching and change. Educational leaders must continue to use the process of systematic monitoring and evaluation as part of best practices in inclusion settings, according to Boscardin (2007) and Kirkland (2008). Research has determined that accountability for instruction of SWD is critical for educational leaders and inclusion teachers (Kirkland, 2008). Principals and educational leaders need to regularly monitor, evaluate, and revise the vision/mission and implementation plans for continued initiation and support for inclusion (Kirkland, 2008). Educational leaders can successfully assess best practices of inclusion programs through conduct surveys and conduct informal interviews to identify barriers that can be remediated (Kirkland, 2008). Therefore, educational leaders must use assessment data related to student learning to develop successful inclusion programs (Kirkland, 2008).

According to Brown (2007), educational leaders and administrators play one of the most important roles in inclusion. Brown (2007) and Kirkland (2008) agreed that educational leaders must model positive attitudes towards accepting all students, faculty, and staff. In addition, administrators who carefully implement strategies in regular education classrooms can ensure SWD will benefit from these efforts (Brown, 2007). Public schools reflect a society that is ready to embrace all children, regardless of their abilities or disabilities so that they can be educated together and learn to value one another as unique individuals; administrators must include children with disabilities with other students in all schools (Brown, 2007).
Summary

Inclusion teachers practicing co-teaching as the service delivery model must exercise best practices when assessing students with disabilities in an inclusion classroom setting. Students with disabilities tend to have difficulty performing successfully on teacher made test, as well as, standardized test. Therefore, inclusion teachers must be knowledgeable on how to assess disabled students appropriately in order to meet their needs in an inclusion setting. This study is essential to the field of education because it provides research based information and methods to administrators and inclusion teachers on how inclusion teachers assess the performance of students with disabilities. These best practices may allow students with disabilities to participate on standardized test, and increase the opportunities for middle schools to meet AYP.
CHAPTER 3

METHODS

It was the researcher’s purpose of this study to identify accommodations, modifications, and forms of assessments that inclusion teachers found useful in middle schools that made adequately yearly progress. Inclusion provides students with disabilities an opportunity to participate in the classroom with other nondisabled peers. Researchers have often looked at the behaviors of students with disabilities (SWD) and found that SWD social skills increased when placed in an inclusion setting (Carter, 2007; Idol, 2006). Furthermore, research is inconclusive as to what accommodations, modifications, and forms of assessments lead SWD to academic success in inclusion settings (Carter, 2007 and Idol, 2006). This chapter includes the methods that were used to conduct this study. The sections included in the chapter are the introduction, research questions, research design, populations, participants, sample, instrumentation, pilot study data collection, response rate, data analysis, reporting the data, and a summary.

Research Questions

The overarching research question that guided this study was: What assessment strategies are used with students with disabilities to meet AYP in inclusion classroom settings? The following sub-questions were also addressed in this study:

1. What forms of assessments do teachers use in inclusion classroom settings to meet the needs of students with disabilities?

2. What accommodations used by teachers are useful in inclusion classroom settings to meet the needs of students with disabilities?
3. What modifications used by teachers are useful in inclusion classroom settings to meet the needs of students with disabilities?

Research Design

The researcher conducted a quantitative study. This descriptive study used survey data to obtain useful practices identified both in general education and inclusion settings. It was the researcher’s purpose to identify accommodations, modifications, and forms of assessments that inclusion teachers found useful in middle schools that made adequate yearly progress (AYP). According to Creswell (2003), a survey design provides a numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. Creswell (2003) also determined that from the results, the researcher generalizes or maintains something true about the population. The purpose of this survey research was to generalize from a sample to a population so that inferences could be about the characteristics, attitudes, or the behaviors of the researchers’ population (Creswell, 2003). The advantages of the survey design according to Creswell (2003) are that: the survey design provided the researcher with the most economical way of obtaining data to complete the study, as well as, providing a quick turnaround of the data to be collected (Creswell, 2003). In addition, the survey design allowed the researcher to identify attributes of a large population from a small group of individuals (Creswell, 2003). The researcher used self administered questionnaires as the form of data collection.

Instrumentation

The researcher developed a survey designed specifically for this study. The survey consisted of 14 likert type questions. The research questions were developed
based on the review of literature. Questions one and two (APPENDIX D) addressed the forms of assessments used in inclusion classroom settings. Butler et al., (2006), and Nortar (2004) agreed that best practices should include written test in the form of paper and pencil, as well as, other evaluation methods such as portfolios (Fisher and Frey, 2006; Schmidt, 2007). Butler and McMunn (2006), and Notar et al., (2004) both agreed that paper and pencil assessments lead to a selected response form of assessment used by classroom teachers. In addition, Butler and McMunn (2006), Notar et al., (2004), and Zhang and Burry-Stock (2003) agreed that teachers should provide students with constructed response types of assessments as it provides opportunities for students to express their ideas and organize their own thoughts. Questions three through eleven (APPENDIX D) addressed the types of accommodations used in inclusion classroom settings. Washburn-Moses (2003), Cox et al., (2006) and Salend (2008) agreed with the Georgia Department of Education (GDOE) that accommodation practices for SWD in an inclusion classroom should be made in the areas of presentation, response, setting, and time/scheduling. Questions twelve and thirteen (APPENDIX D) addressed the modifications used in the inclusion classroom settings. According to Biddulph, Hess, & Humes, 2006; GDOE (2009), teachers participating in inclusion settings can be successful in reaching students in the general education classroom when they provide copies of notes to students with disabilities, read tests to students, provide a decreased amount of homework, provide examples to complete assignments and homework, and create study guides. Question number fourteen addressed demographic information about the participants of the survey.
Each item was answered from a scale of one through five to determine the frequency of the forms of assessments, accommodations, and modifications used in the inclusion classroom setting where co-teaching is the service delivery model. A score of one indicates never used, a score of two indicates seldom used; a score of three indicates daily used, a score of four indicates weekly used, and a score of five indicates monthly used. Therefore, more frequent use of the forms of assessments, accommodations, and modifications were associated with a higher value, with a potential response range of one to five.

A pilot study was administered prior to the actual survey to establish validity and reliability. Nardi (2006) agrees that a legitimate way to determine face validity is to ask if a survey item is getting the desired results. According to Nardi (2006) this can be accomplished by developing a group of experts and asking the experts if the measure or survey item is doing what it is supposed to. The pilot study will consisted of ten administrators who supervise inclusion teachers that use co-teaching as the service delivery. These experts were all employed by Utmost County School System.

In addition, Nardi (2006) agrees that construct validity determines accuracy of a measure or a survey item; therefore, the researcher increased the construct validity by using the literature to develop the survey items. Each item was grounded in the literature (Appendix C).

In this urban school system, Utmost County School System, inclusion classes are offered at all middle schools using the co-teaching as the inclusion service delivery model. Each inclusion class is staffed with two teachers. One teacher is highly qualified in the core academic content knowledge and the other teacher (the special
education teacher) is highly qualified in both the content and specific instruction based on the student’s needs.

**Population/Sample**

The population for this study included inclusion teachers at Utmost County School system who use co-teaching as the service delivery model. According to Georgia Department of Education (GDOE) Utmost County School System is located in the northeastern section of Georgia. Utmost County consists of three middle schools with students in grades six through eight (GDOE, 2010). In addition, GDOE indicates that all of the three middle schools made Adequate Yearly Progress (AYP) during the 2010 school term. The researcher chose two of the three middle schools that made AYP to obtain data for this study. Moreover, GDOE indicates there are approximately 200 middle school teachers in Utmost County School System with approximately 100 of those teachers serving in the inclusion setting and practicing co-teaching. The researcher used a purposive sampling of special education teachers and regular education in inclusion settings that practice co-teaching from two of the middle schools that made AYP and that have the largest population of inclusion teachers. All inclusion teachers with two or more years of experience providing services to students in an inclusion setting were asked to complete the survey. According to Lawrence (2009), teachers with two years of experience have been exposed to the norms of the school and are able to speak of their instructional strategies. Utmost County School System is located in the northeastern section of Georgia. Students in this school system range from a low socioeconomic status with a large percentage of students on free and reduced lunch. Of this socioeconomic group
more than 90% of the students receive free and reduced lunch. All of the three middle schools in Utmost County School System are Title I Schools.

**Participants**

The researcher chose inclusion teachers who are currently teaching in an inclusion program at a middle school that did make AYP. The researcher chose to use inclusion teachers to participate in the study because the inclusion teachers had the experience and knowledge needed to compile information to complete the study. The researcher chose to use a purposive sampling of middle schools that have inclusion programs.

**Sample**

The researcher used a purposive sample to conduct this study. Creswell (2003) determined that participants should be randomly selected from the population. This ensured that the sample group was a true representation of the population (Creswell, 2003). Furthermore, Creswell (2003) clearly states that purposive sampling involves designating a group because they posses some traits the researcher wants to study. In this case the researcher was interested in studying inclusion teachers that practiced co-teaching at middle schools that made AYP for the 2010 school year. In this study, the researcher used teachers from inclusion classroom settings which are already formed (Creswell, 2003). Data were obtained from the Georgia Department of Education (GDOE) to select middle school inclusion teachers to participate in the study. Moreover, GDOE indicates there are approximately 200 middle school teachers in Utmost County School System with approximately 100 of those teachers serving in the inclusion setting.
Pilot Study

A pilot study was conducted prior to administering the actual survey. The pilot study assisted the researcher in establishing the validity and reliability of the survey. The pilot study was conducted in the fall of 2011 and included 10 administrators who supervise inclusion teachers. As a result of the pilot study, no recommendations for changes to the survey used for the actual study were made. The instrument included 14 likert type questions and three open ended questions. The researcher used SPSS 20.0 to analyze the internal reliability of the survey by computing a Cronbach’s alpha (Ponterotto & Ruckdeschel, 2007).

A total of 10 administrators (7 females and 3 males) participated in the pilot of the research survey. The participants’ years of work experience at their current school ranged from 4 to 20 years, with 8 out of 10 having between 4 and 8 years of experience at their current school. The teaching experience of the pilot participants is summarized in Table 3.1. The results indicate that participants were to have between 6 and 10 years of teaching experience.
The likert-scale survey items associated with testing accommodations and modifications were evaluated for internal reliability by computing a Cronbach’s alpha. The results indicate that the internal reliability was excellent ($\alpha = .89$). Furthermore, participants were able to address all of the questions with the exception of two instances (two different participants each omitting a response for a given item). The lack of a response was due to the participant not using the assessment and therefore the item pertaining to accommodations of that assessment was not applicable for that particular participant. Therefore, the response patterns on the survey suggest that the survey is measuring assessment uses and accommodations in inclusion classroom settings as intended.

With regard to the open-ended items, 9 out of 10 of the participants provided feedback on at least one of the three open-ended questions; only one participant did not
provide a response to any of the open-ended items. Table 3.2 summarizes the response rate for each open-ended question.

Table 3.2

Response Rate to Open-Ended Survey Questions

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other forms of assessment used</td>
<td>8</td>
<td>80</td>
</tr>
<tr>
<td>Other types of accommodations used</td>
<td>7</td>
<td>70</td>
</tr>
<tr>
<td>Other types of modifications used</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>At least one of the three questions</td>
<td>9</td>
<td>90</td>
</tr>
</tbody>
</table>

Note. Themes pertained to the use of benchmarks and online assessments, providing extra time for students, providing notes, and using graphic organizers.

The results from the open-ended items on the survey indicate that the responses provided were consistent with the response choices that were already listed on the survey. For example, when asked to indicate the other forms (kinds) of assessments that they use in their inclusion classroom setting, their responses pertained to benchmark tests and on-line assessments, which were already listed on the survey. Also, when asked to indicate the other types of accommodations that they use in their inclusion classroom, they tended to mention providing extra time and changing or adjusting seating arrangements, which pertained to setting or time/scheduling accommodations. Finally, when asked to indicate the other types of modifications that they use in their inclusion classroom setting, the teachers mentioned providing extra
time, using graphic organizers, and providing notes, which were all modifications that were already featured on the survey.

**Data Collection**

The researcher obtained permission from the Institutional Review Board (IRB), the participating school system, and permission from the participants (teachers with two or more years of experience teaching in an inclusion setting at Utmost County School System) to conduct and participate in the study. The researcher developed a permission letter which disseminated to the population and participants of the study. The validity of the survey was established through a pilot study, and the reliability of the survey was obtained by computing a Cronbach’s alpha. The population of the survey included special education teachers and general education teachers who have been teaching in an inclusion setting for two or more years. The researcher mailed each teacher a copy of the survey, requested that each teacher complete the survey, and had each teacher return their completed survey using an enclosed self-addressed stamped envelope. The distribution and receipt for the survey of the actual study was approximately four to six weeks in length. A follow up letter was mailed at the end of the fourth week to remind teachers to return their completed surveys. The researcher collected and analyzed the data obtained from the survey using SPSS 20.0 version. The collected data will be kept in a locked file cabinet at all times for approximately three years after completing the study.

**Response Rate**

The use of paper-based methods is a common practice and continues to hold a key role in survey research (Kroth, et. al, 2009). Regardless of the method used when
conducting research, the response rate is crucial to the validity of data received from the surveys (Kroth et. al, 2009). Two schools which have made AYP for the 2010 school term were purposively selected to participate in the study. These two middle schools were selected to participate in the study because they have the largest population of inclusion teachers. There are approximately 85 teachers participating in the inclusion setting at the two middle schools which have been selected to participate in this study. The survey was mailed to the 85 teachers at the two chosen middle schools.

Data Analysis
The survey responses were entered into a Microsoft Excel and scored using the following weights: (1) never used; (2) seldom used; (3) used monthly; (4) used weekly; and (5) used daily. If the participant did not use the assessment (e.g., the assessment was not part of their available assessments), then the response was left blank and those responses were categorized as not applicable (NA). Therefore more frequent use of the assessment was associated with a higher value, with a potential response range of one to five.

The survey data were uploaded into SPSS, Version 20.0, which is a commonly used statistical software program (Green & Salkind, 2008). The internal reliability of the final survey was assessed by computing a Cronbach’s alpha for each dimension on the survey that linked to one of the three research questions (Ponterotto & Ruckdeschel, 2007).

After evaluating the survey data, the responses were analyzed descriptively by creating response frequency distributions for each item on the survey linking to the
research questions along with the mean and median rating for each item. In addition, the sub-items linking to each item or dimension on the survey were averaged to compute an overall mean response for that particular dimension, and a standard deviation. The mean was provided an indication of the overall central tendency of the responses and the standard deviation provided on overall measure of dispersion for each dimension (Field, 2009). Finally, box plots were be constructed in order to provide a visual depiction of the distributions for each of the teachers’ overall ratings for each dimension on the survey that was linked to a research question. The box plots show the presence of extreme values, outliers, normality and the degree of variability as indicated by the inter-quartile range and the minimum and maximum values (Field, 2009).

Reporting the Data

The data were collected and reported using SPSS 20.0. Tables and graphs were used to report the data related to each survey question. The researcher intends to make the data available to Utmost County School system in an attempt to identify accommodations, modifications, and forms of assessments that inclusion teachers found useful in middle schools that made adequate yearly progress (AYP).

Summary

The researcher used a survey to collect data pertaining to the research being conducted. The purpose of this quantitative study is to identify accommodations, modifications, and forms of assessments that inclusion teachers find useful in middle schools that made adequately yearly progress. These instructional strategies and best practices include forms of assessment such as: pencil paper made tests, portfolios,
selected response, and constructed response test items, accommodations, and modifications. The frequency of each accommodation, modification, and form of assessment is identified in the study with the assistance of a survey. The survey included fourteen lickert type questions which reflect frequency of the tools and strategies used in inclusion classroom settings. These instructional strategies may increase the opportunities for middle schools to meet AYP. Participants for the study were purposively selected from two middle schools from Utmost County School system. Each participant who completed the survey met the requirements for the study. The requirements to participate in the study are that the inclusion teacher must have taught at a middle school that made AYP for the 2010 school year and that the teacher had two or more years of teaching experience in an inclusion classroom setting. The data were collected and reported using SPSS 20.0 respectively. Tables and graphs were used to report the data related to each survey question. The researcher intends to make the data available to Utmost County School system in an attempt to identify accommodations, modifications, and forms of assessments that inclusion teachers found useful in middle schools that made adequate yearly progress (AYP).
CHAPTER 4
REPORT OF DATA AND DATA ANALYSIS

The purpose of this study was to identify accommodations, modifications, and forms of assessment in two middle schools that made Adequately Yearly Progress (AYP). Inclusion provides students with disabilities an opportunity to participate in the classroom with other nondisabled peers. Research is inconclusive as to what accommodations, modifications, and best practices lead inclusion students to academic success in middle schools (Carter, 2007 & Idol, 2006). Moreover, the proposed study will help administrators and teachers obtain a better understanding of how inclusion can lead to students performing better academically when placed in a collaborative classroom.

The purpose of this chapter is to address the following overarching research question and each of the following individual research questions: What assessment strategies are used with students with disabilities to meet AYP in inclusion settings? The following sub-questions were addressed in this study:

1. What forms of assessments do teachers use in inclusion classroom settings to meet the needs of students with disabilities?
2. What accommodations used by teachers are useful in an inclusion classroom settings to meet the needs of students with disabilities?
3. What modifications used by teachers are useful in inclusion settings to meet the needs of students with disabilities?

The remainder of this chapter contains a descriptive profile of the research participants, a presentation of the overall findings of the study based on the data
analysis results, a presentation and discussion of the results for each research question, and concludes with a summary of the key findings that address the overarching research question.

**Demographic Profile of the Respondents**

Data were obtained from the Georgia Department of Education (GDOE, 2009). The GDOE indicates there are approximately 200 middle school teachers in Utmost County School System with approximately 100 of those teachers serving in the inclusion setting. Of those 100 inclusion middle school teachers, 85 middle school teachers taught at two middle schools, which made AYP during the 2010 school term (GDOE). Therefore those 85 inclusion middle school teachers were solicited for participation in this study. Of the 85 teachers solicited, a total of 78 participated in the survey resulting in a response rate of 92%.

The demographic profile of the participants is provided in Table 4.1. The descriptive data in Table 4.1 indicate that the majority of the participants were female (67.9%), the participants were fairly evenly distributed across the four core subject areas, and the participants were to have between 6 and 10 years of teaching experience (41.0%) followed by 11-15 years of teaching experience (25.6%). In fact, 79.5% of the participants in this study had at least six years of teaching experience.
Table 4.1

*Descriptive Data Featuring Participant Demographic Characteristics*

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>23</td>
<td>29.5</td>
</tr>
<tr>
<td>Female</td>
<td>53</td>
<td>67.9</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Subject</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language arts</td>
<td>28</td>
<td>35.9</td>
</tr>
<tr>
<td>Mathematics</td>
<td>27</td>
<td>34.6</td>
</tr>
<tr>
<td>Science</td>
<td>26</td>
<td>33.3</td>
</tr>
<tr>
<td>Social studies</td>
<td>23</td>
<td>29.5</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Teacher experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5 years</td>
<td>16</td>
<td>20.5</td>
</tr>
<tr>
<td>6-10 years</td>
<td>32</td>
<td>41.0</td>
</tr>
<tr>
<td>11-15 years</td>
<td>20</td>
<td>25.6</td>
</tr>
<tr>
<td>16 or more years</td>
<td>10</td>
<td>12.8</td>
</tr>
</tbody>
</table>

Participants were also asked to indicate the number of years that they have worked at their current school. The participants’ responses ranged from 3 to 19 years with a mean number of 5.88 years.
Data Analysis

The survey responses were entered into a Microsoft Excel spreadsheet (2007) using the following numerical values: (1) never used; (2) seldom used; (3) used monthly; (4) used weekly; and (5) used daily. If the participant did not use the assessment (e.g., the assessment was not part of their available assessments), then the response was left blank and those responses were categorized as not applicable (NA). Therefore more frequent use of the assessment was associated with a higher value, with a potential response range of one to five.

The survey data were uploaded into SPSS, which is a commonly used statistical software program (Green & Salkind, 2008). The internal reliability of the survey was assessed by computing a Cronbach’s alpha for the items on the survey linked to one of the three research questions including types of assessments used, accommodations used, and modifications used within an inclusion classroom setting (Ponterotto & Ruckdeschel, 2007). The reliability coefficients along with the descriptive characteristics of the overall dimensions are presented in Table 4.2. The results indicate that the reliability was moderate to good for the forms of assessment used dimension, $\alpha = .72$, the reliability was excellent for the types of accommodations used dimension, $\alpha = .95$, and the reliability was good to excellent for the types of modifications used dimension, $\alpha = .73$ (Ponterotto & Ruckdeschel, 2007). The results also indicate that while there was some variability in the frequency to which participants reported using various assessments, accommodations, and modifications, participants used them weekly to monthly, on average. Finally, the distributions were relatively normal based on the skewness values (Field, 2009).
After evaluating the distributional characteristics of the survey data, the responses were analyzed descriptively by creating response frequency distributions for each item on the survey linking to the research questions along with the mean and median rating for each item. In addition, the sub-items linking to each item or dimension on the survey were averaged to compute an overall mean response for that particular dimension, and then a standard deviation was also computed. The mean provides an indication of the overall central tendency of the responses and the standard deviation provides an overall measure of dispersion for each dimension (Field, 2009). Finally, box plots were constructed in order to provide a visual depiction of the distributions based on the teachers’ overall ratings for each dimension on the survey linking to one of the three research questions. The box plots show the presence of extreme values, outliers, normality, and the degree of variability as indicated by the inter-quartile range and the minimum and maximum values (Field, 2009).

Findings

This section of the chapter provides the detailed findings that emerged from the statistical analysis of the quantitative survey. The response frequencies, mean ratings and median ratings for the items associated with the survey dimension linked to research question one (forms of assessments used in inclusion classroom settings) are provided in Table 4.2. The data was collapsed in table 4.3 for interpretation purposes, because there were too few responses to make an interpretation. The collapsed data included forms of assessment used in inclusion classroom settings.

The results in Table 4.2 indicate that teachers frequently used true-false quizzes, multiple choice tests, and short answer tests on a weekly basis, they frequently used
benchmark assessments and projects on a monthly basis, they used essay tests infrequently, and they infrequently used portfolios or online assessments. On average, teachers frequently use multiple choice tests (3.67) and infrequently used online assessments (2.16).

Table 4.2

*Forms of Assessment Used in Inclusion Classroom Settings*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>True-false quiz</td>
<td>1</td>
<td>10</td>
<td>22</td>
<td>14</td>
<td>25</td>
<td>6</td>
<td>2.94</td>
<td>3.0</td>
</tr>
<tr>
<td>Multiple choice test</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>27</td>
<td>44</td>
<td>5</td>
<td>3.67</td>
<td>4.0</td>
</tr>
<tr>
<td>Short answer test</td>
<td>1</td>
<td>5</td>
<td>23</td>
<td>13</td>
<td>24</td>
<td>12</td>
<td>3.19</td>
<td>3.0</td>
</tr>
<tr>
<td>Essay test</td>
<td>1</td>
<td>21</td>
<td>25</td>
<td>12</td>
<td>18</td>
<td>1</td>
<td>2.39</td>
<td>2.0</td>
</tr>
<tr>
<td>Portfolios</td>
<td>0</td>
<td>30</td>
<td>17</td>
<td>22</td>
<td>5</td>
<td>4</td>
<td>2.18</td>
<td>2.0</td>
</tr>
<tr>
<td>Benchmarks</td>
<td>1</td>
<td>10</td>
<td>15</td>
<td>45</td>
<td>4</td>
<td>3</td>
<td>2.68</td>
<td>3.0</td>
</tr>
<tr>
<td>Online assessments</td>
<td>2</td>
<td>28</td>
<td>20</td>
<td>22</td>
<td>0</td>
<td>6</td>
<td>2.16</td>
<td>2.0</td>
</tr>
<tr>
<td>Projects</td>
<td>1</td>
<td>7</td>
<td>16</td>
<td>43</td>
<td>7</td>
<td>4</td>
<td>2.81</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Note.* NA=no rating or not applicable.
Table 4.3

*Collapsed Data: Forms of Assessment Used in Inclusion Classroom Settings*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>Infrequent</th>
<th>Sometimes</th>
<th>Frequent</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>True-false quiz</td>
<td>1</td>
<td>32</td>
<td>14</td>
<td>31</td>
<td>2.94</td>
<td>3.0</td>
</tr>
<tr>
<td>Multiple choice test</td>
<td>0</td>
<td>2</td>
<td>27</td>
<td>49</td>
<td>3.67</td>
<td>4.0</td>
</tr>
<tr>
<td>Short answer test</td>
<td>1</td>
<td>28</td>
<td>13</td>
<td>36</td>
<td>3.19</td>
<td>3.0</td>
</tr>
<tr>
<td>Essay test</td>
<td>1</td>
<td>46</td>
<td>12</td>
<td>19</td>
<td>2.39</td>
<td>2.0</td>
</tr>
<tr>
<td>Portfolios</td>
<td>0</td>
<td>47</td>
<td>22</td>
<td>9</td>
<td>2.18</td>
<td>2.0</td>
</tr>
<tr>
<td>Benchmarks</td>
<td>1</td>
<td>25</td>
<td>45</td>
<td>7</td>
<td>2.68</td>
<td>3.0</td>
</tr>
<tr>
<td>Online assessments</td>
<td>2</td>
<td>48</td>
<td>22</td>
<td>6</td>
<td>2.16</td>
<td>2.0</td>
</tr>
<tr>
<td>Projects</td>
<td>1</td>
<td>23</td>
<td>43</td>
<td>11</td>
<td>2.81</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Items 3 through 10 on the survey were linked to research question two. Item 3 asked participants to indicate the frequency to which they used the four distinct types of accommodations when using true-false quizzes. The four types of accommodations included presentation, response, setting, and time/scheduling. The participants’ responses regarding the frequency to which they use each of the four types of accommodations when administering true-false quizzes are featured in Table 4.4.

The results in Table 4.4 indicate that participants were frequent to say that they use presentation accommodations weekly, they use response accommodations weekly, they use setting accommodations either weekly or seldom, and they use time/scheduling accommodations weekly. However, the frequency of use ranged from
never to daily depending on the teacher. On average, participants used setting accommodations most frequently (3.26) followed closely by presentation accommodations (3.25), then time/scheduling accommodations (3.14), and finally response accommodations (3.06).

Table 4.4

*Types of Accommodations used in Inclusion Classroom: True-False Quiz*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>10</td>
<td>8</td>
<td>15</td>
<td>10</td>
<td>22</td>
<td>13</td>
<td>3.25</td>
<td>4.0</td>
</tr>
<tr>
<td>Response</td>
<td>10</td>
<td>9</td>
<td>19</td>
<td>9</td>
<td>21</td>
<td>10</td>
<td>3.06</td>
<td>3.0</td>
</tr>
<tr>
<td>Setting</td>
<td>9</td>
<td>3</td>
<td>20</td>
<td>14</td>
<td>20</td>
<td>12</td>
<td>3.26</td>
<td>3.0</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>9</td>
<td>8</td>
<td>17</td>
<td>11</td>
<td>23</td>
<td>10</td>
<td>3.14</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Note.* NA = not applicable given that the form of assessment is not used.

Table 4.5 provides a summary of the participants’ responses regarding the frequency to which they use each of the four types of accommodations when using multiple choice tests. The results indicate that participants were frequent to say that they use presentation accommodations, response accommodations, setting accommodations, and time/scheduling accommodations on a weekly basis when administering multiple choice tests. In addition, the mean ratings indicate that participants used setting accommodations most frequently (3.62) followed by presentation accommodations (3.42), response accommodations (3.29), and finally time/scheduling accommodations (3.24) when administering multiple choice tests in an inclusion classroom.
Table 4.5

*Types of Accommodations used in Inclusion Classroom: Multiple Choice Tests*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>0</td>
<td>5</td>
<td>14</td>
<td>17</td>
<td>27</td>
<td>15</td>
<td>3.42</td>
<td>4.0</td>
</tr>
<tr>
<td>Response</td>
<td>0</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>29</td>
<td>13</td>
<td>3.29</td>
<td>4.0</td>
</tr>
<tr>
<td>Setting</td>
<td>0</td>
<td>1</td>
<td>13</td>
<td>18</td>
<td>29</td>
<td>17</td>
<td>3.62</td>
<td>4.0</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>19</td>
<td>23</td>
<td>12</td>
<td>3.24</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Note.* NA=not applicable given that the form of assessment is not used.

The participants’ summarized responses regarding the frequency to which they use each of the four types of accommodations when administering short answer tests are provided in Table 4.6. The results indicate that those who utilized short answer tests were frequent to say that they use presentation accommodations, response accommodations, setting accommodations, and time/scheduling accommodations on a weekly basis. On average, participants used response accommodations most frequently (3.22) followed by presentation accommodations (3.20), setting accommodations (3.17), and finally time/scheduling accommodations (3.04) when administering short answer tests in an inclusion classroom.
Table 4.6

*Types of Accommodations used in Inclusion Classroom: Short Answer*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>7</td>
<td>9</td>
<td>14</td>
<td>13</td>
<td>24</td>
<td>11</td>
<td>3.20</td>
<td>3.0</td>
</tr>
<tr>
<td>Response</td>
<td>6</td>
<td>8</td>
<td>14</td>
<td>14</td>
<td>26</td>
<td>10</td>
<td>3.22</td>
<td>3.5</td>
</tr>
<tr>
<td>Setting</td>
<td>6</td>
<td>7</td>
<td>16</td>
<td>17</td>
<td>22</td>
<td>10</td>
<td>3.17</td>
<td>3.0</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>7</td>
<td>10</td>
<td>15</td>
<td>16</td>
<td>22</td>
<td>8</td>
<td>3.04</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Note.* NA=not applicable given that the form of assessment is not used.

The participants’ summarized responses regarding the frequency to which they use each of the four types of accommodations when administering essay tests are provided in Table 4.7. The results indicate that those who utilized essay tests were frequent to say that they use presentation accommodations on a weekly basis, they use response accommodations on a weekly basis, they seldom use setting accommodations, and they use time/scheduling accommodations on a weekly basis.

On average, participants use setting accommodations most frequently (2.89), closely followed by time/scheduling accommodations (2.86), and then presentation and response accommodations (2.80) when administering essay tests in an inclusion classroom. Forty-six of the 78 respondents either never or seldom used essay exams. These responses represent more than 59% of the respondents.
Table 4.7

*Types of Accommodations used in Inclusion Classroom: Essay Test*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>14</td>
<td>13</td>
<td>16</td>
<td>11</td>
<td>19</td>
<td>5</td>
<td>2.80</td>
<td>3.0</td>
</tr>
<tr>
<td>Response</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>19</td>
<td>4</td>
<td>2.80</td>
<td>3.0</td>
</tr>
<tr>
<td>Setting</td>
<td>13</td>
<td>11</td>
<td>16</td>
<td>15</td>
<td>15</td>
<td>8</td>
<td>2.89</td>
<td>3.0</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>13</td>
<td>12</td>
<td>15</td>
<td>15</td>
<td>16</td>
<td>7</td>
<td>2.86</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Note.* NA=not applicable given that the form of assessment is not used.

The participants’ summarized responses regarding the frequency to which they use each of the four types of accommodations when administering portfolio assessments are provided in Table 4.8. The results indicate that those who utilized portfolio assessments were frequent to say that they seldom use presentation accommodations, they never use response accommodations, and they never use setting accommodations. However, they were equally likely to say that they never use time/scheduling accommodations and they use time/scheduling accommodations on a monthly basis. On average, participants used response accommodations most frequently (2.52) followed by presentation accommodations (2.45), time/scheduling accommodations (2.41), and finally setting accommodations (2.38) when administering portfolio assessments in inclusion classroom settings. However, the frequency to which they used each of the four types of accommodations was relatively similar on average. Forty-six of the 78 respondents reported never or seldom using portfolios. These responses represent 59% of the responses.
### Table 4.8

*Types of Accommodations used in Inclusion Classroom: Portfolios*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>20</td>
<td>15</td>
<td>17</td>
<td>15</td>
<td>7</td>
<td>4</td>
<td>2.45</td>
<td>2.0</td>
</tr>
<tr>
<td>Response</td>
<td>20</td>
<td>17</td>
<td>13</td>
<td>15</td>
<td>7</td>
<td>6</td>
<td>2.52</td>
<td>2.0</td>
</tr>
<tr>
<td>Setting</td>
<td>20</td>
<td>18</td>
<td>14</td>
<td>16</td>
<td>6</td>
<td>4</td>
<td>2.38</td>
<td>2.0</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>20</td>
<td>17</td>
<td>14</td>
<td>17</td>
<td>6</td>
<td>4</td>
<td>2.41</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*Note.* NA=not applicable given that the form of assessment is not used.

The participants’ summarized responses regarding the frequency to which they use each of the four types of accommodations when administering benchmark assessments are provided in Table 4.9. The results indicate that those who utilized benchmark assessments were frequent to say that they use presentation accommodations, response accommodations, setting accommodations, and time/scheduling accommodations on a monthly basis when administering benchmark assessments. On average, participants used setting accommodations most frequently (3.14) followed by time/scheduling accommodations (3.04), and then presentation and response accommodations (3.00) when administering benchmark assessments in an inclusion classroom. Again, the frequency to which they used each of the four types of accommodations was relatively similar on average.
Table 4.9

*Types of Accommodations used in Inclusion Classroom: Benchmarks*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>8</td>
<td>13</td>
<td>7</td>
<td>29</td>
<td>9</td>
<td>12</td>
<td>3.00</td>
<td>3.0</td>
</tr>
<tr>
<td>Response</td>
<td>7</td>
<td>12</td>
<td>12</td>
<td>26</td>
<td>6</td>
<td>15</td>
<td>3.00</td>
<td>3.0</td>
</tr>
<tr>
<td>Setting</td>
<td>9</td>
<td>8</td>
<td>10</td>
<td>30</td>
<td>6</td>
<td>15</td>
<td>3.14</td>
<td>3.0</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>29</td>
<td>11</td>
<td>10</td>
<td>3.04</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Note.* NA=not applicable given that the form of assessment is not used.

The participants’ summarized responses regarding the frequency to which they use each of the four types of accommodations when administering Georgia online assessments are provided in Table 4.10. The results indicate that those who utilized the Georgia online assessment system were frequent to say that they never use presentation accommodations, they never use response accommodations, they never use setting accommodations, and they use time/scheduling accommodations on a monthly basis. On average, participants used setting accommodations most frequently (2.41) followed closely by time/scheduling accommodations (2.38), presentation accommodations (2.30), and finally response accommodations (2.28) when using the Georgia online assessment system in an inclusion classroom. However, the frequency to which they used each of the four types of accommodations was relatively similar on average. In addition, 46 of the 78 indicated they either never or seldom used online assessments; therefore, these responses represent only 59% of the respondents.
Table 4.10

*Types of Accommodations used in Inclusion Classroom: Georgia Online Assessment*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>22</td>
<td>18</td>
<td>14</td>
<td>14</td>
<td>9</td>
<td>1</td>
<td>2.30</td>
<td>2.0</td>
</tr>
<tr>
<td>Response</td>
<td>21</td>
<td>20</td>
<td>13</td>
<td>14</td>
<td>8</td>
<td>2</td>
<td>2.28</td>
<td>2.0</td>
</tr>
<tr>
<td>Setting</td>
<td>22</td>
<td>16</td>
<td>15</td>
<td>15</td>
<td>6</td>
<td>4</td>
<td>2.41</td>
<td>2.0</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>22</td>
<td>17</td>
<td>12</td>
<td>18</td>
<td>7</td>
<td>2</td>
<td>2.38</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*Note. NA=not applicable given that the form of assessment is not used.*

Finally, participants’ summarized responses regarding the frequency to which they use each of the four types of accommodations when using projects are provided in Table 4.11. The results indicate that those who utilized projects as a form of assessment were frequent to say that they use presentation accommodations on a monthly basis, they never use response accommodations, they use setting accommodations on a monthly basis, and they use time/scheduling accommodations on a monthly basis. On average, participants used time/scheduling accommodations most frequently (2.83) followed by response accommodations (2.69), setting accommodations (2.66), and finally presentation accommodations (2.63) when using projects as a form of assessment in an inclusion classroom.
Table 4.11

*Types of Accommodations used in Inclusion Classroom: Projects*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>7</td>
<td>13</td>
<td>17</td>
<td>29</td>
<td>7</td>
<td>5</td>
<td>2.63</td>
<td>3.0</td>
</tr>
<tr>
<td>Response</td>
<td>7</td>
<td>22</td>
<td>10</td>
<td>17</td>
<td>12</td>
<td>10</td>
<td>2.69</td>
<td>3.0</td>
</tr>
<tr>
<td>Setting</td>
<td>8</td>
<td>18</td>
<td>13</td>
<td>20</td>
<td>13</td>
<td>6</td>
<td>2.66</td>
<td>3.0</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>8</td>
<td>13</td>
<td>14</td>
<td>24</td>
<td>10</td>
<td>9</td>
<td>2.83</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Note. NA=not applicable given that the form of assessment is not used.*

The final section of the survey, pertaining to modifications used in an inclusion classroom setting, was linked to research question three. The last item on the survey asked participants to indicate that frequency to which they use modifications in their inclusion classroom. Participants were specifically asked about providing copies of notes, providing a decreased amount of homework, providing examples to complete assignments and homework, reading tests to students, and providing students with graphic organizers.

The participants’ summarized responses in Table 4.12 indicate that participants were frequent to say that they use all of the listed modifications on a weekly basis. On average, participants provide examples to complete assignments and homework most often (4.07), followed by providing students with graphic organizers (3.64), providing copies of notes (3.60), reading tests to students (3.40), and finally providing a decreased amount of homework (3.27).
Table 4.12

*Use of Modifications in Inclusion Classroom Settings*

<table>
<thead>
<tr>
<th>Source</th>
<th>NA</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide copies of notes</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td>11</td>
<td>31</td>
<td>18</td>
<td>3.60</td>
<td>4.0</td>
</tr>
<tr>
<td>Decrease homework</td>
<td>4</td>
<td>9</td>
<td>15</td>
<td>11</td>
<td>25</td>
<td>14</td>
<td>3.27</td>
<td>4.0</td>
</tr>
<tr>
<td>Provide examples</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>11</td>
<td>31</td>
<td>26</td>
<td>4.07</td>
<td>4.0</td>
</tr>
<tr>
<td>Read tests</td>
<td>3</td>
<td>2</td>
<td>15</td>
<td>18</td>
<td>31</td>
<td>9</td>
<td>3.40</td>
<td>4.0</td>
</tr>
<tr>
<td>Graphic organizers</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>17</td>
<td>25</td>
<td>20</td>
<td>3.64</td>
<td>4.0</td>
</tr>
</tbody>
</table>

*Note.* NA=not applicable given that the form of assessment is not used.

In order to provide an overall summary regarding the frequency to which participants in this study have used the eight different types of assessment on average, the four different types of accommodations in an inclusion classroom on average, and the frequency to which they have used modifications in inclusion classroom settings, a mean was computed for each of those three dimensions on the survey and a box plot was constructed in order to illustrate the distribution of ratings for each dimension.

Figure 2 provides a visual depiction of the distribution of the mean ratings of the three dimensions. The results indicate that on average, participants tended to use the four types of assessments on a seldom to monthly basis, the four types of accommodations on a monthly basis, and the listed modifications on a monthly to weekly basis. However there was a wide degree of variability in the frequency of use as indicated by the relatively large span between the upper (top 25% of values) and lower whiskers (bottom 25% of values). Finally, the grey box or inter-quartile range
indicates that the middle 50% of values spanned approximately one point on the five-point scale.

Figure 2: Distribution of mean ratings for each of the three dimensions of interest.

Figure 3 provides a visual summary of the frequency to which each of the four types of accommodations are used when averaging across the different forms of assessment. The box plot featured in Figure 2 indicates that there was a large degree of variability in the participants’ responses, and the median ratings (black horizontal line within the box or inter-quartile range) indicate that the relative ranking of use for the four types of accommodations were similar. The results also indicate that the distributions were relatively normal as indicated by the centering of the median and
the relatively equal length of the top and bottom whisker within each distribution. In addition, there were two extreme values within the presentation accommodation distribution (one above the mean and one below the mean). Finally, the results indicate that when averaging across all forms of assessments, teachers tend to use each of the four types of accommodation on a monthly basis.

Figure 3. Distributions regarding frequency to which the four types of accommodations are used on average.
Response to Research Questions

This section of the chapter provides the specific responses to each research question associated with the study. These responses are based on the statistical findings that emerged from the analysis of the quantitative survey data, as presented and discussed in the previous section.

**Research Question 1**

The first research question examined what forms of assessments teachers use in inclusion classroom settings to meet the needs of students with disabilities. Based on the data analysis findings, 100% of the teachers reported using multiple choice tests to at least a seldom frequency. In addition, the majority of the teachers (more than 50%) reported using true-false quizzes (58%), multiple choice tests (97%), short answer tests (63%), benchmark assessments (67%), and projects (69%) on a monthly basis at the very least. Only 40% of the teachers indicated that they use essay tests or portfolios on a monthly basis or more, and only 36% said that they use the Georgia Online Assessments System (GOAS) on a monthly basis or more. Finally, the results indicate that while teachers differed in the frequency to which they used the various assessments, they reported using multiple choice tests most often on average (3.67), and the Georgia Online Assessments System least often on average (2.16).

**Research Question 2**

The second research question examined which accommodations used by teachers were useful in inclusion classroom settings to meet the needs of students with disabilities. Table 4.13 provides the mean (average across all four types of accommodations) for each type of assessment used in inclusion classroom settings.
The results indicate that overall, teachers were frequent to utilize all four types of accommodations (presentation, response, setting, and time/scheduling) when using multiple choice tests, and least likely to utilize all four types of accommodations when using benchmark assessments in an inclusion classroom.

Table 4.13

*Overall Usage of the Four Accommodations by Assessment Type*

<table>
<thead>
<tr>
<th>Forms of assessment</th>
<th>Mean use of accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>True-false quiz</td>
<td>3.18</td>
</tr>
<tr>
<td>Multiple choice test</td>
<td>3.39</td>
</tr>
<tr>
<td>Short answer test</td>
<td>3.16</td>
</tr>
<tr>
<td>Essay test</td>
<td>2.84</td>
</tr>
<tr>
<td>Portfolios</td>
<td>2.44</td>
</tr>
<tr>
<td>Benchmarks</td>
<td>3.05</td>
</tr>
<tr>
<td>Online assessments system (OAS)</td>
<td>2.34</td>
</tr>
<tr>
<td>Projects</td>
<td>2.70</td>
</tr>
</tbody>
</table>

When using true-false tests specifically, the results indicate that teachers frequently use setting accommodations (3.26) and least likely to use response accommodations (3.06). In addition, on average, teachers tended to use all four types of accommodations on a monthly basis. However, there was a relatively wide degree of variability in the frequency to which each type of accommodation was used by teachers when administering true-false quizzes.
The results based on the use of multiple choice tests indicate that teachers, were most frequent to use setting accommodations (3.62) and least likely to use time/scheduling accommodations (3.24). On average, they tended to use all four types of accommodations on a monthly basis. However there was a relatively wide degree of variability in the frequency to which each type of accommodation was used by teachers.

For those teachers who indicated that they use short answer assessments, they were most frequent to utilize response accommodations (3.22) and least likely to use time/scheduling accommodations (3.04). However, it is important to note that the differences in the mean ratings were small indicating that the four types of accommodations were used to a very similar frequency, on average. Finally, there was a relatively wide degree of variability in the frequency to which each type of accommodation was used by teachers.

The results based on the use of essay tests, as it relates to accommodations, indicate that teachers use setting accommodations most frequent (2.89) and least likely to use presentation and response accommodations (2.80), although the mean ratings for the four different types of accommodations were very similar. On average, teachers tended to use all four types of accommodations on a seldom to monthly basis; although there was a very wide degree of variability in the frequency to which each type of accommodation was used by teachers. Forty-eight of the 78 respondents indicated they either never or seldom used essay assessments. These responses represent 62% of the respondents.
With regard to portfolios, as it relates to accommodations, indicate that teachers use teachers use response accommodation most frequent (2.52) and least likely to use setting accommodations (2.38), although again, the mean ratings for the four different types of accommodations were very similar. On average, teachers tended to use all four types of accommodations on a seldom to monthly basis. Finally, there was a relatively large degree of variability in the teachers’ responses and therefore a large degree of variability in the frequency to which teachers use each of the four different types of accommodations when using portfolios as a form of assessment in inclusion classroom settings. Forty-seven of the 78 respondents indicated they either never or seldom used portfolio assessments. These responses represent 60% of the respondents.

The results for benchmark assessments, as it relates to accommodations, indicate that teachers were most frequent to use setting accommodations (3.14) and least likely to use presentation and response accommodations (3.00). Also, although there was variability in the frequency to which teachers indicated that they use the four different types of accommodations, on average, teachers indicated that they use the four types of accommodations on a monthly basis.

For those teachers who use the Georgia online assessments system, as it relates to accommodations, indicate teachers were most frequent to use setting accommodations (2.41) and least likely to use response accommodations (2.28). On average, teachers use all four types of accommodations on a seldom to monthly basis; although some teachers never use them and some teachers use them daily. Forty-eight of the 78 respondents indicated they either never or seldom used Georgia online assessments. These responses represent 62% of the respondents.
Finally, when utilizing projects as a form of assessment, as it relates to accommodation, indicate teachers were most frequent to use time/scheduling accommodations (2.83) and least likely to use presentation accommodations (2.63). In addition, while the teachers tended to use all four types of accommodations on a seldom to monthly basis, there was a relatively wide degree of variability in the frequency to which each type of accommodation was used by teachers.

In summary, the frequency to which teachers use each of the four types of accommodations (presentation, response, setting and time/scheduling) depends on the teacher, as well as, the type of assessment being used, with the majority of the teachers using the accommodations with multiple choice tests most often. In addition, teachers tend to use each of the four accommodations on a monthly basis on average, and they tend to use setting accommodations most often (2.94) and response accommodations least often (2.86), although the mean usage for each accommodation was similar (refer to Table 4.14).

Table 4.14

*Mean Usage of Each Accommodation Type*

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Mean usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>2.88</td>
</tr>
<tr>
<td>Response</td>
<td>2.86</td>
</tr>
<tr>
<td>Setting</td>
<td>2.94</td>
</tr>
<tr>
<td>Time/scheduling</td>
<td>2.87</td>
</tr>
</tbody>
</table>
Research Question 3

The third research question examined what modifications used by teachers were useful in inclusion classroom settings to meet the need of students with disabilities. The results indicate that teachers tend to use all five modifications on at least a monthly basis. On average, teachers frequently to provided examples to complete assignments and homework (4.07) followed by provide students with graphic organizers (3.64), provide copies of notes (3.60), read tests to students (3.40), and finally provide a decreased amount of homework (3.27).

Summary

The purpose of this study was to identify accommodations, modifications, and assessment practices in middle school that made Adequately Yearly Progress (AYP). Inclusion provides students with disabilities an opportunity to participate in the classroom with other nondisabled peers. Researchers have often looked at the behaviors of students with disabilities (Carter, 2007; Idol, 2006). Furthermore, research is inconclusive as to what accommodations, modifications, and best practices lead inclusion students to academic success in middle schools (Carter, 2007; Idol, 2006). Moreover, the study will help administrators and teachers obtain a better understanding of how inclusion can lead to students performing better academically when placed in a collaborative classroom.

The results indicate that 100% of the teachers reported using multiple choice tests. The results also indicate that while inclusion teachers differed in the frequency to which they used the different forms of assessment, they reported using multiple choice tests most often on average (3.67) followed by short answer tests (3.19).
However, they reported using online assessments least often on average (2.16) followed by portfolios (2.18). Furthermore, teachers were not likely to use any of the assessments on a weekly or daily basis with the exception of multiple choice tests; multiple choice tests were used between a monthly and weekly basis on average.

The results also indicate that the frequency to which teachers use each of the four types of accommodations (presentation, response, setting and time/scheduling) depends on the teacher as well as the type of assessment being used, with the majority of the teachers using the accommodations with multiple choice tests most often. In addition, teachers tend to use each of the four accommodations on a monthly basis on average, and they tend to use setting accommodations most often (2.94) and response accommodations least often (2.86), although the mean usage for each accommodation was similar. The results also indicate that fewer than half of the respondents reported more than seldom use of essay, portfolio, or online assessments.

Finally, the results indicate that teachers tend to use all five modifications on at least a monthly basis. On average, teachers frequently provided examples to complete assignments and homework (4.07) followed by provide students with graphic organizers (3.64), provide copies of notes (3.60), read tests to students (3.40), and finally provide a decreased amount of homework (3.27).

This chapter presented the data analysis findings and addressed each of the three research questions associated with the study. Chapter 5 provides an interpretation and discussion of these findings in terms of their practical implications and the way in which they relate to the current literature. In addition, Chapter 5 provides a discussion
of the limitations of the current study and provides recommendations for future research.
CHAPTER V

Summary

The purpose of this study was to identify accommodations, modifications and forms of assessments, that inclusion teachers find useful in middle schools that made adequate yearly progress during the 2010 school year. Through 14 lickert-type questions teachers were able to provide responses about accommodations, modifications, and forms of assessments from two middle schools in Utmost County School System. As a result of conducting the study it was determined that there were four types of accommodations (presentation, response, setting, and time/scheduling). The items were scored using a scale of 1-5. Of these four accommodations, it was determined that setting was most frequently used with a mean average of 2.94, followed by presentation with a mean average of 2.88, then time/scheduling with a mean average of 2.87, and finally, response with a mean average of 2.86. What these data indicates is that teachers tend to use each of the four types of accommodations; however, use varied based on the type of assessment being used. In the area of modifications, the results indicated that teachers used five modifications on a monthly basis. The mean average of these modifications included in order from largest to smallest: providing students with examples to complete assignments and homework 4.07, providing students with graphic organizers 3.64, providing students with copies of notes 3.60, reading test to students 3.40, and finally, decreasing the amount of homework provided to students 3.27. In the area of forms of assessments, the results indicated that teachers most frequently used multiple choice in the inclusion classroom setting, followed by short answer test. The results also indicated online assessment
was the least used form of assessment with more than a one point difference from the multiple choice test. It was noted that three forms of assessment, portfolio, essay, and online assessment were not reported to be used more than seldom by more than 50% of the respondents. In fact, 60% of the respondents reported never using portfolio assessments and 62% reported never using online assessments.

The final chapter includes discussion of the findings identified in chapter 4 and provides the conclusion and implications of the study. This chapter emphasizes and focuses on implications of accommodations, modifications, and forms of assessments in two middle schools that made adequate yearly progress during the 2010 school year.

Analysis of Research Findings

The major findings of this study may be summarized as follows: the descriptive profile of the participants indicated that the majority of the participants were female. The participants were fairly evenly distributed across the four content areas (language arts, mathematics, science, and social studies). The largest group of participants who completed the survey question indicated teaching experience between 6 and 10 years whereas only 10 participants indicated teaching experience of 16 or more years in the inclusion classroom setting. According to Lawrence (2009), a teacher who has been employed at a school for two or more years has been exposed to the norms of the school and is be able to accurately speak on the instructional strategies of that school. In accordance with this statement each of the teachers who participated in the study would have accurate knowledge of the forms of assessments, accommodations, and modifications in their school.
The accommodations results of this research study indicated that participants used four types of accommodations (presentation, response, setting, and time/scheduling). On an average, setting was the accommodation most frequently reported as being used at a rate of 2.94. The data further indicated that presentation was the second accommodation most frequently used at a rate of 2.88. Finally, the data indicates that time/schedule and response accommodations were used at a rate of 2.87 and 2.86 respectively.

Five modifications were used in conducting this study. These modifications were: provide students with copies of notes, decrease the amount of homework assignments to students, provide students with examples on assignments and homework, read test questions, and provide students with graphic organizers. The data of the modifications indicated that teachers frequently provided students with examples to be used for completing class work and homework assignments. This modification was more than 0.40 points larger than graphic organizers which was the second most frequently used modification. Additionally, the data indicated that a large percentage of the teachers used decreasing the amount of homework that students are provided with on a weekly basis; however, this modification was least likely to be used by the participants, scoring an mean average of 3.27 more than 0.8 points behind providing students with examples. Finally, the modification results of this study indicated a decrease in homework was not frequently used; however, it still scored a large mean rate of 3.27.

Eight forms of assessment were used in conducting the study. These forms of assessments were: true-false quiz, multiple choice test, short answer test, essay test,
portfolios, benchmarks, online assessments system, and projects. The data indicated that each form of assessments was used by the teachers who participated in the survey. It is interesting to note; however, that more than 60% of the respondents indicated that they never used either online or portfolio assessments. An analysis of the data indicated that multiple choice was the most frequent used form of assessment; whereas, portfolios and online assessment system was the least likely form of assessment used. The mean point difference from multiple choice test, the most frequently used form of assessments, and online assessment system, the least used form of assessment was more than a 1.0 difference. Therefore, this indicates that online assessment systems were used less frequently than multiple choice tests. Finally, the forms of assessments data indicated true-false quiz and short answer test have mean rates of 3.18 and 3.16 respectively, which indicated that both forms of assessments were used with approximately the same rate.

Discussion of Research Findings

The results of the survey, in the area of accommodations, were consistent with the review of literature section. Inclusion co-teachers used four types of accommodations. The review of literature section supports these types of accommodations, as Washburn-Moses (2003) stated, testing accommodations generally fall in the four categories: presentation, response, setting, and timing/scheduling. The study was consistent with the statement made by Washburn-Moses (2003) as those were the four accommodations used by inclusion teachers at the two middle schools that participated in the study. The data indicated that inclusion teachers used presentation, response, and time/scheduling accommodations weekly
and they used setting accommodations either weekly or seldom. This data represents that setting accommodations were used most frequently and presentation, response, and time/scheduling accommodations were used less frequently. Weekly use of accommodations showed that teachers had established routines so that when students with disabilities participated on an assessment they were familiar with the testing accommodations. Additionally, each accommodation was used at least on a weekly basis. This means that teachers were preparing SWD with the skills needed so that they would not become dependent on the accommodations daily. The literature review supports it may be appropriate to use some instructional accommodations to provide access to grade level content, but these accommodations should be faded away or deleted from the students instructional day over time (GDOE, 2009).

The results of the survey, in the area of modifications, were consistent with the review of literature section. Inclusion co-teachers used five modifications in the co-teaching classroom setting. According to the survey data, these five modifications are: provide copies of notes, decrease homework, provide examples, read tests, and provide students with graphic organizers. The survey data indicated that inclusion co-teachers used the modification of providing examples to complete assignments and providing homework to students more than any of the five modifications. This suggests that this modification may be used by other co-teachers as a modification in the inclusion co-teaching classroom setting. Inclusion teachers, most frequently, provided students with graphic organizers, followed by, providing students with copies of notes, then by, reading test to students, and finally, providing students with a decreased amount of homework. According to Biddulph, Hess, & Humes (2006)
inclusion teachers can be successful in reaching students in the general education classroom when they provide students with disabilities modifications. In addition, Gunter, Reffel, Rice, Peterson, & Venn (2005) stated that students with visual learning styles should be introduced to graphic organizers. When inclusion teachers use a variety of visual presentation materials and graphic organizers, it allows students with disabilities to personalize concepts and create understanding.

The results of the survey, in the area of forms of assessments, were consistent with the review of literature. The survey included eight forms of assessments which are: true-false quiz, multiple choice test, short answer test, essay test, portfolios benchmarks, online assessments, and projects. The literature review according to Butler and McMunn (2006), and Notar, Zuelke, Wilson, & Yunker (2004) stated that a variety of assessment practices must be used in the classroom to assess student learning. In addition, the review of literature, according to Butler and McMunn (2006) indicated that teachers should practice other methods of evaluation besides paper and pencil such as using a portfolio or a snap shot of student’s work. Portfolios allow teachers to evaluate students using other forms of assessments (Butler & McMunn, 2006). For this reason, portfolios and projects were included in the survey to determine their frequency of use. Despite the fact that the research supported the use of portfolios and projects, more than half of the respondents never used portfolios. The survey data indicated that true-false quizzes, multiple choice test, and short answer test was used by teachers on a weekly basis. The survey data also indicated that teachers used benchmark assessments and projects on a monthly basis. Finally, more than half of the respondents reported never using portfolios and online
assessments. According to the survey data, teachers reported using multiple choice tests most frequently, in comparisons to the other forms of assessments.

Conclusions

The purpose of this study was to identify accommodations, modifications, and forms of assessments that inclusion teachers find useful in middle schools that made Adequately Yearly Progress (AYP) in Utmost County School System during the 2010 school year. The researcher made conclusions to the study as a result of analyzing data from the survey. These results were made in the area of accommodations, modifications, and forms of assessments used by middle school inclusion teachers who teach inclusion classes and practice co-teaching at two middle schools. The accommodation which was most frequently used in the inclusion classroom was setting. Setting refers to an adjustment made where the assessments is taken. This was the accommodation used most frequently by inclusion teachers and inclusion teachers reported using this accommodation on a weekly basis. Teachers tend to use each of the four accommodations on a monthly basis on average, and they tend to use setting accommodations most often (2.94) and response accommodations least often (2.86), although the mean usage for each accommodation was similar. The modification which was most frequently used in the inclusion classroom setting was provide examples. These examples were provided by inclusion classroom teachers to be used by students in the inclusion classroom setting as a guide to complete their assignments and homework. The results indicate that teachers tend to use all five modifications on at least a monthly basis: provide examples to complete assignments and homework.
(4.07), followed by graphic organizers (3.64), provide copies of notes (3.60), read tests to students (3.40), and finally provide a decreased amount of homework (3.27).

It has also been concluded that multiple choice was the form of assessments most frequently used in the inclusion classroom setting. Multiple choice is considered a selected response assessment, as well as, traditional form of assessment. As a selected response form of assessment, multiple choice, is most frequently used on state mandated test. As a traditional form of assessment multiple choice continues to be one of the most frequently used forms of assessments. the majority of the teachers (more than 50%) reported using true-false quizzes (58%), multiple choice tests (97%), short answer tests (63%), benchmark assessments (67%), and projects (69%) on a monthly basis at the very least. Only 40% of the teachers indicated that they use essay tests or portfolios on a monthly basis or more, and only 36% said that they use the Georgia Online Assessments System (GOAS) on a monthly basis or more. Finally, the results indicate that while teachers differed in the frequency to which they used the various assessments, they reported using multiple choice tests most often on average (3.67), and the Georgia Online Assessments System least often on average (2.16).

Implications

The implications of this study are centered around the concept of the inclusion classroom setting. These concepts stem from the survey questions to this study which focuses on three main areas: accommodations, modifications, forms of assessments, and the implications associated with each of these areas will be discussed.

A number of implications exist from the research study in reference to accommodations. A major implication was that inclusion teachers used a variety of
accommodations on a regular basis with students in the inclusion classroom setting. By using the different types of accommodations students with disabilities were provided with opportunities to participate in each accommodation; therefore, increasing their familiarity with the type of accommodation. Despite the fact, that each accommodation was not used weekly, students were still provided with the opportunity to use each accommodation multiple times prior to being assessed. Another implication of the accommodations was that setting appeared the most frequently used accommodation in the schools that participated in the survey. Students with disabilities are no longer allowed to be housed separately from their non-disabled peers to receive instruction. This result indicates why setting was the accommodation with the highest mean.

A second implication exists from the research study in reference to modifications. As an implication modifications are used in the inclusion classroom setting. The participants reported using each modification either weekly or daily in the inclusion classroom setting. This indicated that each modification was frequently used by the inclusion teachers. On the other hand, a decreased amount of homework was the least frequently used modification; however, when providing a decreased amount of homework, students with disabilities (SWD) will have a greater opportunity to successfully complete the assignment with a least amount of frustration. For this reason, it is clear that providing examples to students in the inclusion classroom setting is needed and essential.

A third implication exists from the research study in reference to forms of assessments. As inclusion teachers try to assess students with various learning styles
and disabilities they attempt to provide instruction that meets the needs of all students. To meet student’s needs various forms of assessments have been researched as being most frequently used by educators. Therefore, multiple choice was the form of assessment with the largest mean according to the survey data and which was also most frequently used on state standardized test.

Teachers, especially, those in the content areas enter the school term with the task of improving test scores. In fact, student achievement will serve as one of the key elements to be considered when renewing teacher contracts. When teachers are unable to increase students test scores they may not be able to continue to be employed at the school system. As teachers seek new ways to reach all students, including SWD, they make adjustments through accommodations, adjust assignments with modifications, and evaluate students using various forms of assessments. As administrators recognize that students need to be successful through academic achievement they should provide teachers with alternative forms of assessing students beyond the traditional paper and pencil.

Finally, administrators are aware that federal and state laws mandates students with disabilities be placed in the least restrict environment. This environment is expected to provide SWD with comparable educational services to their nondisabled peers. These services aim to allow the SWD to receive services from the inclusion classroom teachers. The implication is that administrators are aware not only of the policy that governs students with disabilities but also that they are aware of the instructional practices of the classroom teachers, most importantly the inclusion classroom teachers. Administrators have been informed that SWD serve as the
subgroup which hinders schools from making adequate yearly progress. They have also been made aware that assessment strategies should be used with SWD whom they serve. Finding the commonality between the schools making AYP and providing improved assessments strategies for student with disabilities appears to be an issue.

Recommendations

The recommendations listed represent a listing of recommendations for practice to improve replication of this study. These recommendations are based on the review of literature section and the results from this study as studies. Limited research has been conducted in the areas of accommodations, modifications, and forms of assessments used in the inclusion classroom setting (Carter, 2007). Some studies have focused on the inclusion classroom environment and teacher traits (Carter, 2007), the personal development of students with disabilities (Doran, 2008), and the social skills of disabled students (Hundert, 2007) on the elementary and middle school level. The recommendations are also based on the findings of this study. A brief description of each recommendation is provided to complete this study. The recommendations will be made for the field of education and for additional research.

Recommendations for Practice

Limited research has been conducted on the assessment of students with disabilities. In attempting to meet this state mandated requirement, administrators may need to be more aware of the instructional strategies utilized by teachers in the inclusion classroom setting. Middle school administrators are challenged with identifying the appropriate accommodations, modifications and forms of assessments for SWD. More practice and training should be provided to administrators and
inclusion teachers who practice co-teaching in the inclusion classroom setting. In addition, Administrators should provide ongoing training to inclusion teachers on when to appropriately use accommodations, modifications, and forms of assessments.

**Recommendations for Research**

Additional research is needed in the area of assessment strategies on the middle and high school level. More research has been conducted in the area of elementary schools in comparison to secondary schools (middle and high school levels) in the area of assessment strategies. Research has been conducted on the behaviors and characteristics of students with disabilities. However, limited research has been conducted on any level in the area of assessing students with disabilities as it relates to inclusion classroom settings. The statement can be made about research on any level in the area of administration awareness on assessment strategies. For this purpose it is recommended that additional research be conducted in this area. The recommendation to have the study replicated but with emphasis on administrators becoming more aware of evaluation practices of the inclusion classroom teacher. In addition, research should be conducted to determine why so few inclusion teachers use portfolios, online assessment, and essay forms of assessment. Research should also be conducted using a larger sample and different demographics. Further, research should be conducted that includes qualitative and quantitative methods, as it relates to, accommodations, modifications and forms of assessments used in inclusion classroom settings.
Dissemination

The administrators at the middle schools which participated in the study should have an opportunity to review and discuss the data that was collected. Contact will be made with the administrators of the two middle schools surveyed to share and review the data that has been collected and analyzed. At that time, the data collected from this study in the area of accommodations, modifications, and forms of assessments used with students with disabilities in the inclusion classroom settings will be discussed. After analyzing the data it was determined that a variety of assessment strategies had been used. In fact, each strategy was evaluated on a frequency level of never, seldom, monthly, weekly, and daily use. It was indicated from the survey that in most cases inclusion classroom teachers used accommodations, modifications, and forms of assessments at least weekly; thereby, impacting the middle schools making adequate yearly progress. For this reason, the researcher hopes that by providing the middle school administrators with the data collected it will impact administrators’ knowledge of instructional strategies in the inclusion classroom setting. In addition, the researcher intends to provide the results to the school system where the research was conducted. The researcher hopes that by providing the system with the results of the research the data will have a positive impact on schools that made adequate yearly progress, as well as, middle schools that did not make adequate yearly progress. Middle schools that made AYP will have an opportunity to evaluate the assessment strategies used at their individual school and to determine the frequency of use. More so, middle schools which did not make AYP in the school system will have an opportunity to evaluate assessment strategies that may assist them with making Adequate Yearly progress.
REFERENCES


Dieker, L. (2001). What are the characteristics of effective middle and high school co-taught teams for students with disabilities? *Preventing School Failure, 46*(1), 14-23.


APPENDIX A

IRB PROPOSAL

Dear Colleague:

My name is Quinton J. Morris. I am an assistant principal at Dekalb Alternative School and also a doctoral student in the College of Education at Georgia Southern University. I am interested in determining accommodations, modifications, and forms of assessment used in inclusion programs that cause middle schools to make Adequate Yearly Progress (AYP) in DeKalb County Schools. This information could be used by educators, such as yourself, as inclusion programs are developed and implemented throughout schools across our state and nation. The desire would be to provide insight for the stakeholders on inclusion programs and to give an understanding about the necessary components, as well as, assessment practices that should be part of an inclusion program in order to ensure success. Accommodations, modifications, and forms of assessments regarding inclusion programs in middle schools will be studied. I believe the information will be valuable in educating both general and special education students, as well as, planning for future inclusion programs.

This letter is to request your assistance in gathering data to analyze for the purpose of determining best practices used in middle school inclusion programs and provide recommendations for schools and school systems to use in making decisions on inclusion programs. There is no penalty should you decide not to participate. If you agree to participate, please complete the attached survey and place it in the self addressed envelope provided. I realize you are very busy during this time of year and assure you
this should take no more than fifteen to twenty minutes. Completion and return of the
survey will indicate permission to use this information you provide in the study. Please
be assured that your responses will be kept absolutely confidential. All of the surveys will
be reported in summary form and will not be reported individually by the school system
or school. The study will be most useful if you respond to every item in the survey;
although, there is no penalty if you choose not to respond to each survey item. If you
would like a copy of the study’s results, you may indicate this by writing your desire to
receive this information on top of the completed survey.

If you have any questions or concerns about this research project, please call me,
Quinton J. Morris, at 770.483.1048 or 404.784.8987, or you may contact me at
morrisq@bellsouth.net. Should you have questions or concerns about your rights as a
research participant, I encourage you to contact the IRB coordinator at The Office of
Research Services and Sponsored Programs at 912.681.5465.

Thank you in advance for your participation in the study.

Respectfully,

Quinton J. Morris, Ed.S.
APPENDIX B

INFORMED CONSENT

COLLEGE OF: Education

DEPARTMENT OF: Leadership, Technology and Human Development

Dear Utmost County School Systems,

My name is Quinton J. Morris and I am an assistant principal at DeKalb Alternative School, as well as, a doctoral student in the College of Education at Georgia Southern University. I am conducting this research for the completion of my doctoral program and to be awarded a doctoral degree.

The purpose of this study is to identify accommodations, modifications, and forms of assessments that inclusion teachers find useful in middle schools that made adequately yearly progress. This information obtained from this research may benefit society and educators as inclusion programs are developed and implemented throughout schools across our state and nation. The desire would be to provide insight to stakeholders on inclusion programs and to give an understanding about the necessary components, as well as, assessment practices that should be part of an inclusion program in order to ensure success.

Participants will fill out a likert type survey and return the survey to the investigator in a self addressed stamped envelope addressed to the investigator (see
address below). There is minimal risk in completing the survey as teachers may find discomfort discussing their best practice classroom strategies. Participation in the survey should not succeed 30 minutes. There is no penalty should the participant decide not to participate. There will be no compensation, incentives, or stipends to participants for completing the survey as participation in the research.

Participants will have a right to withdraw from completing the survey at anytime without penalty. Participants have the right to ask questions to the investigator as it relates to the survey and or the study. The researcher will have access to the completed surveys. The collected data will be kept in a locked file cabinet at all times for three years following completion of the study. Participation in the research is completely voluntary. The researcher can be contacted at: morrisq@bellsouth.net. The researchers’ faculty advisor, Dr. Denise Weems, can be contacted by at: 912- 478-5768 or email at: dmweems@georgiasouthern.edu. For questions concerning your rights as a research participant, contact Georgia Southern University Office of Research Services and Sponsored Programs at 912-478-0843.

You will be given a copy of this consent form to keep for your records. This project has been reviewed and approved by the GSU Institutional Review Board under tracking number H12155-IRB

Title of Project: A description of accommodations, modifications, and assessment practices in middle schools that made adequate yearly progress

Principal Investigator: Quinton J. Morris, 3837 Valley Bluff Lane, Snellville, Georgia 30039, 770-483-1048, morrisq@bellsouth.net
Faculty Advisor: Dr. Denise Weems, P.O. 8134 Statesboro, GA 30460-8134, 912 478-5768, dmweems@georgiasouthern.edu

By participating in the survey, you have agreed to this informed consent.
## APPENDIX C

### LITERATURE MATRIX

<table>
<thead>
<tr>
<th>Survey Questions</th>
<th>Literature</th>
<th>Research Sub-questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D

SURVEY QUESTIONS
Accommodations, Modifications, and Forms of Assessments in Middle Schools

Directions: This questionnaire is designed to help to determine the frequency of use of forms of assessments, accommodations, and modifications in your classroom. Please circle the number that reflects your best estimate of the frequency that you implement the tools/strategies found in the following statements (when 1= never, 2 = seldom, 3 = monthly, 4 = weekly, and 5 = daily).

1. How often are the following forms of assessments used in inclusion classroom settings?

   a. true-false quiz  
   b. multiple choice test  
   c. short answer test  
   d. essay test  
   e. portfolios  
   f. benchmarks  
   g. online assessments system (OAS)  
   h. projects
2. What other forms (kinds) of assessments do you use in your inclusion classroom settings?

Please circle the number that reflects your best estimate of the frequency that you implement the tools/strategies found in the following statements (when 1 = never, 2 = seldom, 3 = monthly, 4 = weekly, and 5 = daily).

3. If you use a true-false quiz how often is the following accommodation used with this assessment?

   a. presentation (adjust test materials or how test directions are read)

      1  2  3  4  5

   b. response (adjust manner how students respond to or answer test quest)

      1  2  3  4  5

   c. setting (adjust place test is usually occurring)

      1  2  3  4  5

   d. time/scheduling (adjust time or scheduling of test)

      1  2  3  4  5
4. If you use **multiple choice test** how often is the following accommodation used with this assessment?

   a. presentation (adjust test materials or how test directions are read)
      
      | 1 | 2 | 3 | 4 | 5 |
      |---|---|---|---|---|

   b. response (adjust manner how students respond to or answer test questions)
      
      | 1 | 2 | 3 | 4 | 5 |
      |---|---|---|---|---|

   c. setting (adjust place test is usually occurring)
      
      | 1 | 2 | 3 | 4 | 5 |
      |---|---|---|---|---|

   d. time/scheduling (adjust time or scheduling of test)
      
      | 1 | 2 | 3 | 4 | 5 |
      |---|---|---|---|---|

Please circle the number that reflects your best estimate of the frequency that you implement the tools стратегии found in the following statements (when 1 = never, 2 = seldom, 3 = monthly, 4 = weekly, and 5 = daily).

5. If you use **short answer test** how often is the following accommodation used with this assessment?

   a. presentation 1 2 3 4 5
   b. response 1 2 3 4 5
   c. setting 1 2 3 4 5
   d. time/scheduling 1 2 3 4 5
6. If you use essay test how often is the following accommodation used with this assessment?

   a. presentation 1 2 3 4 5
   b. response      1 2 3 4 5
   c. setting       1 2 3 4 5
   d. time/scheduling 1 2 3 4 5

7. If you use portfolios how often is the following accommodation used with this assessment?

   a. presentation 1 2 3 4 5
   b. response      1 2 3 4 5
   c. setting       1 2 3 4 5
   d. time/scheduling 1 2 3 4 5
Please circle the number that reflects your best estimate of the frequency that you implement the tools/strategies found in the following statements (when 1 = never, 2 = seldom, 3 = monthly, 4 = weekly, and 5 = weekly).

8. If you use **benchmarks** how often is the following accommodation used with this assessment?

   a. presentation 1 2 3 4 5
   b. response 1 2 3 4 5
   c. setting 1 2 3 4 5
   d. time/scheduling 1 2 3 4 5

9. If you use the **Georgia Online Assessment System** (a computer based assessment) how often is the following accommodation used with this assessment?

   a. presentation 1 2 3 4 5
   b. response 1 2 3 4 5
   c. setting 1 2 3 4 5
   d. time/scheduling 1 2 3 4 5

10. If you use **projects** how often is the following accommodation used with this assessment?

    a. presentation 1 2 3 4 5
    b. response 1 2 3 4 5
    c. setting 1 2 3 4 5
    d. time/scheduling 1 2 3 4 5
Please circle the number that reflects your best estimate of the frequency that you implement the tools/strategies found in the following statements (when 1 = never, 2 = seldom, 3 = monthly, 4 = weekly, and 5 = daily).

11. What other types of accommodations do you use in your inclusion classroom settings?

12. How often are the following modifications used in inclusion classroom settings?
   a. provide copies of notes  
      1  2  3  4  5
   b. provide a decreased amount of homework  
      1  2  3  4  5
   c. provide examples to complete assignments and homework  
      1  2  3  4  5
   d. read tests to students  
      1  2  3  4  5
   e. provide students with graphic organizers  
      1  2  3  4  5

13. What other types of modifications do you use in your inclusion classroom settings?
14. Please provide a little information about yourself for the purpose of studying the survey results.

a. Gender:
   - Male
   - Female

b. What subjects do you teach?
   - Language Arts
   - Math
   - Science
   - Social Studies
   - Other (Administrator)

c. How long have you worked at this school? ____ years

d. I have been teaching for:
   - 0 - 5 years
   - 6 – 10 years
   - 11 -15 years
   - 16 – or more years
   - Other (Administrator)

   Thank You for taking Time to Complete This Survey