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Standardized Testing of Special Education Students:
A Comparison of Service Type and Test Scores

A dissertation
presented to
the faculty of the Department of Educational Leadership and Policy Analysis
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Doctor of Education in Educational Leadership

by
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May 2013

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Keywords: Disabilities, Education, Elementary School, IDEA, IEP, Leadership

ABSTRACT

Standardized Testing of Special Education Students:

A Comparison of Service Type and Test Scores

by

Christine Hogan-Young

The purpose of this study was to determine if there was a difference in Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards (TCAP MAAS) achievement test scores for special education students who receive their instruction in the resource classroom or in an inclusion classroom. The study involved third, fourth, and fifth grade special education students in an east Tennessee school district. The TCAP MAAS scale scores used were from the 2011-2012 school year.

An independent samples t-test was implemented in this study. The dependent variable in the study was the TCAP MAAS scaled scores. The independent variable was student placement. Placement was regular education inclusion or special education resource class. The study included 11 elementary schools and 210 special education students' scores. The results indicated significantly higher TCAP MAAS scaled scores of those students receiving their instruction in a regular education inclusion classroom in every analysis except for fifth grade Reading/Language Arts scores.

DEDICATION

This dissertation is dedicated:

To my loving husband Jason, who has always encouraged me to follow my dreams. Your love and support has seen me through four college degrees. You have always supported my decision to go back to school and given me encouraging words I needed. I know that along the way I would get discouraged and procrastinate. It was your words that helped me keep focus and reach my goal. I love you more than words can express, and I would not have been able to accomplish this without your help.

To my beautiful children Lina, Jaxon, and Jake, just having you in my life brings me joy. There are not words for the love and happiness you bring me. Thank you for being understanding when I was too busy to play a game, go outside to play, or just watch your favorite TV show. I hope I have been a model of the importance of lifelong learning. I am proud of all of you and I know you can achieve your dreams no matter what they are. Lina, I hope that you always keep your drive to never give up. I know that you can accomplish anything you want!

To my parents Pat and Pat Hogan, you raised me to think I could do anything I set my mind to. I appreciate your emotional and financial support throughout my academic career. I would not be the person I am today without you both. I appreciate all the times you babysat, took a sick child to the doctor, or just ran an errand because I asked. There are not enough thank yous in the world for you. You are the reason education is so important to me and I hope that I will be a model to my own children to see its importance. I love you!

To my immediate and extended family, thank you for your love and support throughout this journey. I appreciate all the words of encouragement and the many babysitting hours. You helped me realize my goal.

ACKNOWLEDGEMENTS

I would like to thank Dr. Donald Good for serving as my dissertation chair. You have provided me guidance and encouragement when I needed it. Your guidance and help with statistical analysis has been instrumental in my completion of this dissertation. Dr. Virginia Foley, Dr. Pamela Scott, and Dr. Cecil Blankenship thank you for your constructive advice and guidance throughout this process. I am grateful for your help. Dr. Foley, thank you for the many hours you gave to “dissertation boot camp.” Your support and encouraging words have meant a lot.

I would like to acknowledge the support of my Hamblen County Cohort: Janet Dalton, Krista Crum, Tony Dalton, Kim Dyke, Amy Cannon, and Jeff Kinsler. I am grateful for the friendships made and the time we spent together. Jeff, thank you for being the “Math Man” you made statistics possible for me. Janet, thank you for being a role model, you are the reason I have grown as a leader.

I would also like to give thanks to the creation of “Dissertation Boot Camp.” The weekends of locking me in the library helped me maintain my focus and gave me the resources I needed to complete this dissertation. Thank you to the faculty and staff members who gave their weekends. Janet, Krista, Paula, and B.J., thank you for the boot camp laughs, you made it fun.

Thank you to my family and friends who helped make this dissertation bearable. For Paula Davis a special thank you for your words of support and help when I was stumped. David Freeman, thank you for understanding statistics, you made my statistical analysis a reality. To my dear friend D’Anne Seals, thank you for always knowing the right thing to say and offering the needed distraction when I was feeling overwhelmed.

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CHAPTER 1

INTRODUCTION

Open the door to any classroom and you will find a wide range of diversity. Classrooms are filled with students who come from varied ethnic groups, socioeconomic statuses, and disabilities. Prior to 1975 a disabled child would likely not have been in a regular education classroom or possibly even a school at all (Yell, Katsiyannis, & Hazelkorn, 2007). Those with minimal learning disabilities may have been placed in the back of classrooms and receive no additional attention.

In 1975 Congress enacted the Education for all Handicapped Children Act (EHA). The purpose of this act was to ensure children with disabilities would receive a free and appropriate public education like all the other students (Yell et al., 2007). This was the initial legislation that held educators responsible for educating students with disabilities. In 1997 the Individuals with Disabilities Education Act (IDEA) was reauthorized. In IDEA amendments were added requiring all special education students participate in district and statewide assessments. In 2001 when the No Child Left Behind Act (NCLB) was passed special attention was placed on individual subgroups participating in district and statewide assessments. One of these subgroups is students with disabilities who receive special education services. With the passing of time and the reauthorizations of educational legislation great strides have been made to ensure the students who have disabilities will make progress academically (Thurlow & Wiley, 2006).

The NCLB Act made schools accountable for the progress of all children, including those with disabilities. Students who have an identified disability and participate in public schools have Individual Education Programs (IEP) that are written by a team. This team arrives at an

agreed decision about what is best for the disabled child. One of the many decisions this team makes is placement. The IEP team determines if the student will be placed in regular education and receive inclusion services or if the student will be placed in a resource room for a specific amount of time each day for remediation.

In Tennessee all children grades three through eight take the Tennessee Comprehensive Assessment Program (TCAP) Achievement Test (Tennessee Department of Education, TCAP, 2012). Special education students are included in this annual achievement test. However special education students have the option of taking the Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards Assessment (TCAP MAAS) as opposed to the standard TCAP. Their scores are included in the school's overall achievement test scores. Students with disabilities are expected to reach academic proficiency or better by performing at grade level expectations just as their peers. Thurlow (2002) suggested historically low expectations have been set for disabled students. Thurlow gives six reasons to identify disabled students in assessments: 1) to ensure an accurate portrayal of education, 2) so disabled students will benefit from reform, 3) for accurate comparisons, 4) to avoid exclusions, 5) to meet legal requirements, and most importantly 6) to prompt high expectations. The purpose of IDEA is to ensure disabled students are getting the most appropriate instruction. Additional data are needed to determine which special education service (inclusion or resource pullout service) is the most appropriate placement for students to make academic growth, which in turn will improve achievement scores.

Statement of the Problem

Educational trends change with each passing decade. With each new trend changes are made in how academic content is presented in the general education classrooms. For the students with disabilities changes have been made from exclusion of academic services with regular education peers to full inclusive rights in the regular education program. Initially all students with disabilities were educated separately from their peers. In the 1960s questions were raised about the difficult decision of determining where students should be educated. In response to these questions in the 1970s special day schools were replaced with resource rooms (Zigmond, 2003). The question of where to educate students with disabilities was raised again with IDEA. The general consensus is that children with disabilities should be educated in the most mainstream setting possible (Zigmond, 2003). Two settings are commonly used in educating students with disabilities: a regular education inclusion setting and a special education setting where students are taken out of regular education class to receive remediation services. Determining which of the settings was the most effective is important when planning for a student with disabilities. This study's purpose was to determine which placement yields higher test scores on standardized achievement tests.

Research Questions

The following research questions were used to guide this study:

1. Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for those identified special education students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

2. Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for those identified special education students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

3. Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education third grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

4. Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education fourth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

5. Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education fifth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

6. Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education third grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

7. Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education fourth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

8. Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education fifth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

Significance of the Study

The goal of educators is to impart to their students as much knowledge as possible and to encourage them to be lifelong learners. When educating students with disabilities additional challenges are presented to educators, especially the challenge of producing proficient test scores for these students on standardized tests. Providing the least restrictive environment (LRE) to the students with disabilities is imperative to ensure their academic needs will be met (Ward, Montague, & Linton, 2003). Unfortunately LRE may become a secondary concern due to the pressures teachers feel regarding standardized testing.

Our nation's system of education is a "state administered" system. State standards and testing have become the focal points in schools across our nation. The No Child Left Behind Act of 2001 stipulates statewide accountability systems based upon challenging academic content and achievement standards. (Ward et al., 2003, p. 4)

The responsibility of the IEP Team is to make sound decisions in determining the best placement of instruction for students with disabilities. It is difficult for IEP Teams to make the decision between a regular education classroom with inclusion services or a direct service approach that involves pull-out instruction in a resource classroom. Regardless of the setting the team should focus on closing the achievement gap between regular education students and special education students. Teachers making placement decisions should have the knowledge to effectively gather and analyze the data. This will ensure appropriate placement decisions regarding the education of students with disabilities are being made (Moore, 2009). To effectively teach students with disabilities and promote proficient test scores on standardized

tests further research into inclusion and pull-out resource settings should be conducted. This study will help address the present dearth of research in that area.

Definition of Terms

The following definitions of terms are provided for clarity.

Alternate Assessment – Assessments designed for a subgroup, commonly used to give students with disabilities access to state assessment. This type of assessment can vary from state to state (Thurlow, Lazarus, Thompson, & Morse, 2005).

Highly Qualified Teachers – Teachers who possess a minimum of a bachelor’s degree, state licensure, and demonstrated content knowledge through course work or testing in their subject area as mandated by The United States Department of Education. The teacher must show competency in all subject areas teaching. Competency is shown through passage of rigorous test of subject knowledge and teaching skills or completion of high objective uniform state standards evaluation (Neil, 2006).

Inclusion – Providing students with disabilities an education in the regular education classroom with supplemental aids and supports (Howard, 2004).

Individualized Education Program (IEP) – An individualized legal contract prepared for every special education student. The IEP includes information that is specifically designed to meet his or her unique needs; it must include but is not limited to current performance, annual goals, special education and related services, participation with nonspecial education students, participation in state and district tests, transition needs, and discipline (Henley, Ramsey, & Algozzine, 2006).

Individuals with Disabilities Education Act (IDEA) – Act that allowed for all students who have disabilities to receive a free and appropriate public education. Originally called the Education for All Handicapped Children Act (EHA), that was signed into law in 1975. Today, EHA is known as IDEA (Henley et al., 2006).

Least Restrictive Environment (LRE) – Situation in which students are taught in an environment that is similar to a normal learning situation. In most cases for the students with mild disabilities the LRE is a regular education classroom (Henley et al., 2006).

Mainstreaming – An educational placement where students spend a portion of their day with regular education students and a portion of their day with special education students (Idol, 2006).

Mild to Moderate Disability – Disabilities such as learning disability or educable mentally retarded (Madden & Slavin, 1983).

Present Level of Performance (PLOP) – IEP section where the students academic performance is recorded. This information provides the teacher with benchmarks to design appropriate instruction (Yell et al., 2007).

Resource – Setting in which students are removed (pulled out) from the general education classroom and provided their academic services in a separate classroom; the location is generally the special education room (Obiakor, Harris, Mutua, Rotatori, & Algozzine, 2012).

Response to Intervention (RTI) – Three tiered model that involves graduated levels of intervention to students who are at risk for learning difficulties (Pyle, 2011).

Self-contained classroom – Classroom where students remain and receive their services for the majority of the school day (Obiakor et al., 2012).

Specific Learning Disability (SLD) – A disorder in one more of the basic psychological processes involved in understanding or using spoken or written language, SLD may impact the ability to effectively listen, speak, read, write, spell, or do math. It must adversely affect educational performance (Tennessee Department of Education, n.d.a.).

Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards Assessment (TCAP MAAS) – A standardized assessment that covers the same grade level content as the TCAP with expectations for content mastery modified (Cortiella, 2007).

Testing Accommodations – Changes in the way the tests are administered or responded to by the student (Elliott & Niebling, 2005).

Testing Modifications – Alterations of the test content that can change what the test measures. Modifications change the validity and inferences made from the test (Elliott & Niebling, 2005).

Limitations and Delimitations

Several limitations to this study should be noted. This study only involved mildly or moderately disabled students. There will be varying disabilities for the students and their individual ability levels will vary. Whereas all students were provided instruction in either a inclusive or resource classroom, the researcher does not know what type of instructional practices were used in the classroom and if they were effective. Also, within this study, all third, fourth, and fifth grade special education students' scores were used and there was a different number in each grade level. The students may have been provided with accommodations during the standardized test. The researcher did not know which accommodations were used or if all

students used them. An additional limitation is that this study has been limited to one East Tennessee County; therefore, results may not be generalizable.

Overview of the Study

This research study consists of five chapters. Chapter 1 is the introduction to the study and provides general background information. This chapter consists of a statement of the problem, research questions, significance of the study, term definitions, limitations and delimitations, and study overview. Chapter 2 is the literature review. This chapter includes theoretical framework, gives a brief history of special education, an explanation of the Response To Intervention process, an understanding of an IEP, special education placement options, standardized testing, and an overview of the Tennessee Comprehensive Assessment Program. Chapter 3 describes the methodology. This chapter explains selecting the data, research questions with null-hypotheses, instrumentation, data descriptions, and data analysis. Chapter 4 contains an analysis of the collected data and a summary of the results. Chapter 5 is the final chapter. It is a review of the assumptions of the study and study limitations and a summary explaining the results and how they correlate to the research questions. This chapter also includes suggestions and recommendations for future study of this subject.

CHAPTER 2

LITERATURE REVIEW

Introduction

The practice of including students with disabilities into the regular education program has drastically changed. Students with disabilities initially had minimal educational rights, but over time and with the passage of federal legislation they now have full rights to participate in the regular education classroom with their peers. With the change in special education involvement in regular education two issues have surfaced, “The efficacy of the continuum model and the use of inclusive education to address shortcomings of the continuum model” (Rea, McLaughlin, & Walther-Thomas, 2002, p. 203). The arena of serving special education students has evolved. Students with more complex needs are increasing. Data show that students who are served in pull-out special education programs are not achieving at high success rates (Rea et al., 2002). Lower expectations, poor curricula, removal from general education, and negative attitudes are some factors that may play a role in this lack of achievement in pull out programs.

Rea et al. (2002) found varying reactions to the inclusive movement. Those who oppose inclusion imply that including the special education students takes away their special services. General education is not prepared to meet the needs of disabled students and it is merely a cost cutting effort. On the other hand those who support inclusion claim disabled students have the legal right to be educated in the regular education classroom with their age appropriate peers (Rea et al., 2002). Proponents of inclusion indicate students with disabilities who are included in classrooms have appropriate role models and are held to higher expectations.

Rea et al's. (2002) research indicated that students with learning disabilities in inclusive settings tend to achieve better than their peers who participate in a resource pull out classroom. They suggest in order for inclusive programs to be successful there must be a strong emphasis on the standard school curricula and the special education students should receive adequate support and modifications in the classroom. Schools should not assume segregation from typical peers is the best way for students with disabilities to achieve (Rea et al., 2002). If students can receive quality education with their typical peers and achieve success, regular education classroom would be their least restrictive environment.

Theoretical Framework

Many theories exist regarding educational practices as they relate to student success. This section is an examination of the theory of constructivism as it relates to special education. Special education students are often seen as disabilities rather than as individuals. With this type of preconceived notion teachers can easily hold students with disabilities to lower standards than regular education students. Students should be perceived as individuals and not labels as defined by their disability (Hausstatter & Connolley, 2012). Knowing a student has a disability can predispose a teacher to look for deficits associated with that particular label and, in turn, respond to that student with lower expectations (Broderick, Mehta-Parekh, & Reid, 2005).

The historical norm of special education students being separated from regular education students has made it difficult for students with disabilities to have real opportunities in school. The reauthorization of IDEA and the implementation of NCLB have changed this normed separation for students with disabilities. These monumental educational legislations mandated that all students, including those with disabilities, must be provided with the same opportunities

to identify and build on individual strengths, talents and prior knowledge (Broderick et al., 2005). Students with disabilities need the same ownership for their learning that is offered to others. Students actively construct information through interactions in their physical and social environments (Reid, Kurkjian, & Carruthers, 1994).

Teachers who embrace the constructivist model of teaching view learners as individuals who have individual interests and embrace self-regulated learning. Constructivist teachers encourage transformations by guiding students in their discovery of new information (Reid et al., 1994). Constructivism encourages exploring and asking questions. It forces the students to think for themselves not depend on the teachers to tell them what to do or think. This teaching methodology is not centered on curriculum mastery. This methodology is directed toward individual student knowledge, which is purposeful and meaningful for individual students. When a student with a disability takes information already known and applies it to current learning, it enables the building of connections and promotes retention of information. This type of individualized learning easily aligns with the IEP, and promotes individual growth that is student centered, and not based on a labeled disability (Hausstatter & Connolley, 2012).

Traditional assessment can be identified by several goals:

a) to identify the instructional level of each student, (b) to diagnose the instructional needs of each student, (c) to make decisions regarding promotion or retention, (d) to report educational progress to parents, and (e) to comply with guidelines at the district, state, and federal levels – often for funding purposes. (Meltzer & Reid, 1994, pp 340-341)

When the assessments have been completed, the teacher's interest lies in what students have learned and where they should be academically. Traditional standardized assessments do not embrace the constructivist views. In constructivist assessment the focus is on student strengths, how learning occurs, and what strategies they are using during the learning (Meltzer & Reid,

1994). Purposeful and appropriate educational assessment emphasizes the importance of evaluating students on an individual, holistic level. This shift shows the assessment purpose is to guide effective instruction not predict future learning outcomes (Meltzer & Reid, 1994). This type of assessment is especially beneficial to the students with disabilities. It allows for special educators to make instructional decisions based on the students' current learning and aids in appropriate goal writing in their IEPs.

History of Special Education in the United States

Students who have disabilities are currently entitled to have the same educational opportunities as their peers without disabilities based on IDEA. Prior to 1975 most individuals with disabilities would have had limited educational opportunities. According to congressional findings in 1974 more than 1.65 million disabled individuals were not receiving educational services, and more than 3 million who were admitted into school were not receiving an education appropriate to their needs (Yell et al., 2007). Many of the disabled individuals who were not in a school were sent to live in state institutions for individuals with mental retardation or mental illness. These institutions provided only minimal care such as food, clothing, and shelter. The students were merely accommodated and not provided with proper academic assessment, education, or rehabilitation. For example in 1970 only one in five students was educated in public schools. Many states had laws excluding students who were deaf, blind, emotionally disturbed, or mentally retarded from attending school (U.S. Department of Education, 2010).

In 1975 Gerald Ford signed into law EHA also know as Public Law 94-142 (PL 94-142) (U.S. Department of Education, 2010). This legislation has been described as, “the first compulsory special education law” (Henley et al., 2006, p 12). Much of what happens in special

education is because of this law. This legislation was the most influential in allowing federal government to take a role in the education of the disabled students. The initial purpose of this law was to provide individuals with disabilities access to educational programs. The law was not focused on educational opportunities or to promote academic advancement, only to provide basic services (Yell et al., 2007). Student achievement is addressed in subsequent legislation.

The original EHA law was designed so that it could be amended as needed. While amendments have been added and changes made, the basic premise of the law has largely remained the same. PL 94-142 guarantees a free, appropriate public education (FAPE) to all children with disabilities. This law has four unique purposes that enable disabled students to access educational opportunities as defined by the law:

(A) provided at public expense, under public supervision and direction, and without charge, (B) meet standards of the state educational agency, (C) include an appropriate preschool, elementary, or secondary education in the state involved, and (D) provided in conformity with the individualized education program. (Yell, Katsiyannis, & Hazelkorn, 2007, p. 2)

The creation of this law was in response to concern for two groups of children: children who had been denied access to public education, and those who had limited access to public education.

EHA was reauthorized in 1990 with new amendments, and congress officially changed the law's name to IDEA (Yell et al., 2007). The legislation was again updated in 1997 and at that time congress's intent was to change the focus of the law. The law had been successful in including those children with disabilities into public education; however, congress wanted change the law to reflect an emphasis on improving student performance. The changes in the law altered the focus of what teachers should be doing to educate students with disabilities. Teachers are not only working to include students into classrooms but are also working to improve their achievement. The law raised accountability for these students and their learning.

The next wave of changes, involving IDEA, was the passing of the NCLB. President Bush signed this legislation into law in 2001. The NCLB is the updated Elementary and Secondary Education Act. The purpose of the law is to improve academic achievement for all students. The law indicated that by the 2005-06 school year all students will be educated by a highly qualified teacher, participate in an environment that is advantageous to learning and is drug free and safe, and all students will graduate (Yell, Shriner, & Katsiyannis, 2006). This law affected all regular and special education students. The intent of congress was to ensure that all states and schools were held accountable in improving reading and math achievement. NCLB requires that all students who attend public school score proficient in reading and math by the close of the 2013-2014 school year. The NCLB legislation is the first time that congress specifically identified children with disabilities as a subgroup. The revised law also made it clear that these students not only have access to core academic subjects, but their knowledge must be measured by the same standards as regular education students (Handler, 2006).

Student and subgroup achievement was not the only focus of the NCLB. Mandates were also made that states set measurable goals or milestones of achievement. These milestones are called Adequate Yearly Progress (AYP) (Yell, Katsiyannas, & Shiner, 2006). The 2004 revision of Individuals With Disabilities Education Improvement Act (IDEIA) confirmed that scores of students with disabilities are to be included in AYP requirements of NCLB (Thompson, Lazarus, & Clapper, 2006). NCLB also affected other areas of public education. NCLB stated that teachers would be highly qualified in the subjects they teach, allowed for Reading First grants to under achieving students, and required that programs obtained through federal money were proven effective through scientific research (Yell, Katsiyannas, & Shiner, 2006). The update of NCLB changed how schools measure the achievement of the special education students.

Students with disabilities are now held to rigorous standards, and schools are working diligently to find ways to ensure they achieve academic success.

The passage of NCLB raised concerns when it came accomplishing the goals of IDEA and NCLB. The passage of NCLB created a need to update IDEA so that all the goals and mandates of each law could be met. The two laws were aligned by IDEA requiring all teachers to become highly qualified, special education students will take part in state wide assessments, and special education services would be based on research (Yell, Katsiyannas, & Shiner, 2006).

IDEIA has the same emphasis as NCLB on placing highly qualified teachers into the classrooms. According to the legislation if a teacher is highly qualified under NCLB then the teacher would also be considered highly qualified under IDEIA (Handler, 2006). The skill of a teacher is important when looking at factors of student success and skilled teachers are essential for student success. The requirements for a special education teacher include a minimum of a bachelor's degree, licensure in the state he or she is teaching, and subject matter competency for the subjects he or she is teaching (Yell, Katsiyannas, & Shiner, 2006). Not only must the teachers be highly qualified, the teaching assistants who provide academic instruction must also meet a highly qualified status (Yell, Drasgow, & Lowry, 2005).

Like NCLB, IDEIA has high expectations for those students who have disabilities. The students are allowed access into regular education classrooms to the maximum extent possible with cooperation among the teachers (Handler, 2006). The students also should be given the opportunity to access rigorous content standards in their instruction (Yell, Katsiyannas, & Shiner, 2006). This instruction is vital to their success because the law mandates special education students' achievement will be monitored in the statewide assessments. The law allows for some flexibility in how states determine assessments in which special education students

would participate and how their scores will be reported. While the majority of special education students will be judged by the normal standards, exceptions are allowed for those for whom grade level standards are not appropriate. IDEIA allows for alternate and modified achievement standards for those who meet the designated criteria (Yell et al., 2006). By allowing for these alternate assessments, the states attempt to meet the criteria set forth for all to participate in statewide assessments.

Peer reviewed research is included in IDEIA. This is to ensure the most reliable programs and practices are being used during instruction. The perception of congress is that schools were previously using programs and practices that were not effective (Yell et al., 2005). Congress did not specifically define peer review. It is however aligned to NCLB's scientific research that is rigorous and systematic and has used objective scientific methods to evaluate the instructional procedures set in place (Yell et al., 2006). The addition of this requirement is an attempt by congress to ensure more effective teaching in classrooms will occur.

Response to Intervention

When President Bush reauthorized IDEIA in 2004 Response to Intervention (RTI) was introduced. RTI monitors how a student responds to research based interventions. This is a part of the identification process when making a student eligible for a specific learning disability (SLD) (Stecker, Fuchs, & Fuchs, 2008). The original method for special identification for SLD required aptitude-achievement discrepancy and would take multiple years of poor achievement before a student may qualify for SLD. With the RTI method when a student is showing poor response to validated intervention and instruction, it is an indicator a disability may be present.

The RTI process allows for a quicker identification process to get a student the services needed to succeed.

Glover and DiPerna (2007) indicated several elements that should be present in the RTI process. These elements include a multi-level service delivery system, interventions that are evidence based, implementation across the school system, and procedural integrity. While sound instruction is essential in the implementation of RTI, progress monitoring is also important. Explicit progress monitoring supports students and aids teachers in their delivery of instruction and later in possible SLD identification. The recommended proposed delivery system within the RTI framework is a three-tiered instructional model (Stecker et al., 2008).

The first tier of instruction is primary intervention. In this tier, the function is to prevent inadequate instruction over a long period and hopefully prevent over identification of disabilities from occurring or learning difficulties from becoming more severe. Tier I occurs in the general education classroom. Because the data used in the RTI process may potentially identify a student with a disability, the data must show lack of response to scientifically validated instruction (Stecker et al., 2008). Therefore schools must be able to show students have received high quality instruction. Assessment plays a vital role in Tier I preventative practices. Ideally assessment should occur at the beginning of the school year to determine where students are performing. Students who fail to perform adequately on assessment should be targeted as “at risk” students. Those who have been targeted as “at risk” could potentially catch up with their peers with quality instruction or they may continue to struggle. Those who fail to meet benchmarks should have their progress monitored. Progress monitoring is a system of brief assessments that are given at regular frequent intervals to determine progress in the curriculum

(Stecker et al., 2008). If it appears that a student is not going to meet benchmarks, progressing to Tier II instruction may be the appropriate next step.

Tier II instruction is implemented when a student is not making adequate progress in the general education program. Tier II is supplemental to Tier I instruction. Tier II is typically pull-out instructional services delivered in a small group setting on a regular basis (Stecker et al., 2008). This instruction could occur daily or several days a week. Each individual school system should have standards set for service delivery. Assessment continues to be an integral component in this tier. Students in Tier II should have their progress monitored weekly. If the data show that the student is responding to the intervention, the student may resume solely receiving Tier I, or the student support team may determine the student is not responding to the intervention and feel a more intensive intervention may be warranted. In this instance the student would then progress to Tier III intervention (Stecker et al., 2008).

Tier III instruction is tertiary intervention. In this level of intervention the student has previously received intense instruction in the two previous tiers and has failed to make adequate progress. At this point the student support team should discuss special education referral. The assessment data collected thorough progress monitoring can help document the presence of a possible learning disability. However other assessments should also be conducted to confirm the presence of the SLD as well as eliminate the possibility of other potential learning difficulties (Stecker et al., 2008).

Procedural integrity is the degree to which the students move through the multi-tiered plan (Keller-Margulis, 2012). While students are moving through the tiers high stake decisions are being made regarding their education. It is essential that protocol be followed and integrity maintained before making the decision to identify a student as having a learning disability. Once

a student has been identified as having a learning disability the student support team will then determine the student's eligibility for services and proceed with the individualized education process.

The Individualized Education Program

The foundation of IDEA is to provide a free and appropriate public education to students who have a disability. The starting point to providing this education in is the creation of the IEP. The IEP is a, "required legal document that outlines and defines the school district's goals, supports, and services for any student who has been classified as having a learning disability and is receiving special education services" (Pieralangelo & Guiliani, 2007, p 3). Each IEP created is unique, tailored to the student, and incorporates a wide variety of components.

The first step in creating an IEP that allows a student to receive FAPE is to determine the student's current academic functioning level. This functioning level is determined through academic testing and observations and is identified as the present level of performance (PLOP) in the IEP (Gartin & Murdick, 2005). The PLOP is then used to write goals, and short-term objectives or benchmarks unique to the student's functioning level.

The annual goals are described as, "academic and functional goals that are designed to meet the child's needs that result from the child's disability to enable the child to be involved in and make progress in the general curriculum and meet each of the child's other educational needs that result from the child's disability" (Gartin & Murdick, 2005, p 328). The goals and benchmarks should be measurable and attainable within a reasonable amount of time. They can include but are not limited to, academic functioning, behavior, and physical needs (Henley et al., 2006).

The IEP must reflect the individualized services the student will be receiving in order to ensure the goals will be met. These services are to include direct special education services, related services, and supplementary aids and services the school will be providing (Yell, Shriener, & Katsiyannis, 2006). In addition to goal attainment the purpose of the services is to allow for the students to be involved in the general curriculum and make progress, to participate in activities that are nonacademic, and to allow for participation with nondisabled peers (Gartin & Murdick, 2005). These services are required to have an anticipated beginning and ending date on the IEP. These services are also required to include service location, provider, and frequency and any needed modifications.

The reauthorization of IDEIA also includes the requirement of reporting frequent progress to parents. This progress is specifically tied to the mastering of their individualized annual goal (Gartin & Murdick, 2005). The progress on the goals and benchmarks should be sent at the same frequency as the regular education student's grade card (Yell, Shriener, & Katsiyannis, 2006).

The involvement of students with disabilities in the general education program is an essential component of the IEP. Students should receive the maximum time allowable with their nondisabled peers. The IEP contains an explanatory statement, which states, "The extent to which the child will not participate with his or her peers in the general education classroom and in other activities, as described in the goals and objectives and the special education and related services provided" (Gartin & Murdock, 2005, p. 328).

NCLB brought attention to student achievement and issued mandates for state and district wide assessments. This change compelled legislators to include provisions for special education students in testing. The IEP allows for a statement of individualized appropriate accommodations the student will need while participating in the mandated assessments (Gartin &

Murdick, 2005). Some students will not be able to participate in mandated assessments even with accommodations. The IEP team identifies these students, and the team must include in the IEP why standardized assessment is not appropriate. Then an explanation is provided to justify due to the severity of their disability that an alternate assessment will be used for this student (Gartin & Murdick, 2005).

When IDEA was reauthorized in 1997 there was a requirement that at age 14 transition services would be addressed as part of the IEP. These transition services help the IEP team plan for possible future career or college goals. In addition to these goals when the student turns 16 the statement of transition services will include what services are needed to meet goals (Gartin & Murdick, 2005). The statement should also include agency responsibilities. As part of this transition planning postsecondary goals will be included. The purpose of the goals is to provide measurable transition assessment related to training, education, employment, and if appropriate independent living skills (Gartin & Murdick, 2005).

Special Education Placement

The focus on where to teach students is an important decision when planning an educational program and writing an IEP. In IDEA the concept of Least Restrictive environment (LRE) is explained as educating children with disabilities in their least restrictive environment. The purpose of LRE is to ensure that students with disabilities are not segregated from regular education opportunities and are allowed a normal school experience (Henley et al., 2006). Many parents and professionals are in agreement that disabled students should receive the majority of their instruction with nondisabled peers (Cardona, 2009). Generally students want to feel and do the same things as “regular” students. Klinger and Vaughn (1999) revealed in their studies that

students want to learn the same things, using the same books, complete the same homework, and have the same grades as their nondisabled peers. The responsibility of the school system is to provide educational services ranging from least to most restrictive. This ensures students are entitled to every opportunity to be fully included to the maximum extent possible. The IEP team makes the LRE decision. Factors to consider when schools are making an LRE decision for a student are:

1. What are the educational benefits of the special vs. general education setting? 2. What are the social benefits of being educated with his or her peers? 3. What is the negative impact of the student with disabilities in the general education classroom? 4. What are the costs of the general education placement? (Rozalski, Stewart, & Miller, 2010, p. 158)

Failure by the team to address these questions may result in an inappropriate placement of a student (Rozalski et al., 2010). Generally students who have mild disabilities are placed in a regular classroom with supportive type services. The services can range from consultation, inclusion, or resource pull-out services.

Special education placement has long been a topic of research. Dunn (1968) concluded that there was no evidence that educating special education students in a special class was effective. According to Dunn:

This expensive proliferation of self contained schools and classes raises serious educational and civil rights issues which must be squarely faced. It is my thesis we must stop labeling these deprived children as mentally retarded. Furthermore we must stop segregating them by placing them into our allegedly special program. (1968, p. 6)

In his research Dunn (1968) found that administrators and regular teachers sincerely felt the best place for students with disabilities was outside of the regular classroom. This concern came from wanting to alleviate the students from the pressures of an unrealistic and inappropriate program of study. A specific concern regular education teachers expressed was too

much of their time would be spent on the “slower children.” In addition some parents expressed concern about regular education placement observing, “Their slow learning children were frustrated by the more academic program and were rejected by other students” (Dunn, 1968 p. 7).

Despite the feelings of educators and parents Dunn (1968) argues that regular education placement is the best placement for special education students. He expressed that the regular education classrooms are equipped to educate special children. With the addition of public school personnel such as psychologists, guidance counselors, remedial educators, and teaching assistants the regular education classroom has the personnel needed to provide an educational program to a disabled student. In addition to personnel the late 1960s provided the introduction of, “computerized teaching, teaching machines, feedback typewriters, ETV, video tapes and other materials” (p. 10) these materials make instruction more accessible to those with disabilities. According to Dunn (1968) special education students make as much or more progress in the regular education classroom than they do in a special education classroom.

Approximately a decade later Sindelar and Deno (1978) indicated that resource rooms were a more effective placement than regular education classrooms for those students having a learning disability. Their research included the study of resource programs and how not only achievement was impacted but also personal and social development of disabled students.

Sindelar and Deno’s (1978) conducted their research because the number of disabled students “mainstreaming” into the regular education programs increased. Along with the mainstreaming of special education students, many services also expanded into the regular education classrooms. The additional services seen included additional training for the regular education teacher and consultants being available to aid the teacher in instruction. They

concluded that in the academic domain resource programming was more effective. However in the personal social domain positive effects could not be established.

A short time later Carlberg and Kavale (1980) detailed more complex results. They note a decline in the growth of special classes in the 1970s. Their research was based on whether this growth of placing special education students into regular education classes is a justified move. Their review of existing literature failed to show unilateral evidence showing that one educational placement over another was better for special education students.

Carlberg and Kavale (1980) cite three explanations for why a conclusion has not been determined for the best placement of special education students. The first is treatment effect. It is possible that a special education room or a regular education room has little effect on the academic gain of a special education student. The second is power. Power as referring to the statistical tests being used to determine if a significance occurs between the two placements. If the variability is low, the statistical test has low power. If previous studies have low power, this may contribute to why there is not a statistical difference in proving which placement, regular or special education, is more advantageous to the special education student. The third is internal validity. According to Carlberg and Kavale (1980) the random assignment is the preferred method for assuring group equivalence. They indicate the findings of previous studies is weakened by the chance that one class or another may have started out with an advantage that influenced the final results.

Their calculations showed individuals with severe disabilities who were receiving instruction in special classes performed as well as those who had been placed in a regular education class. They also established that students with mild learning and behavior disorders

who were in self contained and resource classrooms had a slight academic advantage over those who were in general education classrooms (Carlberg & Kavale,1980).

Leinhardt and Pally (1982) reviewed how setting can educationally and emotionally impact special education students. They explain two main strategies as the basis for how placement decisions should be made. Group students homogenously and place them into special education settings protected and isolated form the regular environment or place them into the regular education setting and help them adapt in that context. Leinhardt and Pally (1982) show history argues four points for the separation of special education students:

First there is the need to protect students from the painful and harmful experience of repeated failure. Second, there is the belief that such failure results in the permanent and irrevocable damage. Third there is the need to target slower, more direct instructional methods in both academic and behavioral skills to children needing special assistance. Finally, there is the concern that children left in the regular setting would fall further behind and become stigmatized by their peers. (p. 558)

Leinhardt and Pally (1982) indicate merely leaving students alone in the regular education environment does not help them and may even harm them academically and socially. They indicate that setting may not be the factor that impacts student growth but the instructional and affective processes from the setting. Setting does not guarantee or eliminate the presence of sound instructional practices. Setting is not the primary factor in success, the implementation of several variables are pertinent to student growth. The presence of small class size with one to one instruction, high content teaching and learning activities with efficient use of time, mastery learning with regular monitoring of progress, appropriate pacing with new material presentation, positive teacher effect, additional instructional time, and positive interaction increasing student self-concept all provide for success not setting alone.

Leinhardt and Pally (1982) conclude that the setting itself is not the predictor for success, but it is what happens in the setting that will determine success. However, they also indicate it is easier to implement specific features in the resource room that will provide a higher rate of success for special education students. They feel educators should focus less on the debate of setting and more on implementing sound educational practices. For moral and social reasons the least restrictive environment for each individual child is preferable.

In 1983 Madden and Slavin conducted a review of studies that showed if academic achievement was the desired outcome, then regular education was the most appropriate placement. They determined a variety of factors that impact successful inclusive programs. Individualized instruction should be implemented and supplemented by the appropriate personnel. There should be the presence of programs to help enhance the behavior, self-esteem and achievement of the special education student. The use of cooperative learning and individualized instruction programs will provide success in these areas.

While there is limited and conflicting research on the subject of setting IDEA indicates students should be placed in their LRE. Students who have mild disabilities are sometimes provided educational services in general education programs a percentage of the day; this is called inclusion (Idol, 2006). In an inclusive classroom it is essential that the special education and regular education teacher work as a partnership. In the reauthorization of IDEA the emphasis on student achievement has increased the pressure of teacher accountability in regards to special education student achievement (Lingo, Barton-Arwood, & Jolivette, 2011). The largest groups of students who are placed into regular education classrooms with inclusive services are those with learning disabilities. This placement has increased over the last several years despite research indicating that inclusive placements are not conducive to improving

outcomes for students who have mild disabilities such as a learning disability (Cook, Semmel, & Gerber, 1999). Factors that may influence the lack of success include inadequate training, lack of materials, knowledge, and pessimistic attitudes of teachers.

A number of tools and strategies can be implemented to make inclusive classrooms effective. The initial step towards success is general and special educators communicating and problem solving together. Inclusive instruction is most effective when teachers collaborate and consult with each other regarding individual student needs (Obiakor et al., 2012). Regular education teachers provide instruction for all the students in their classroom. However regular education teachers must be prepared to make the accommodations presented in the IEP to meet the individual student needs (Berry, 2006). It is the special educator's responsibility to effectively communicate to the regular education teacher what modifications and accommodations will be needed to ensure student success. It is the regular educators responsibility to implement these accommodations and modifications and continue to maintain the integrity of the lesson's content (Fisher, Frey, & Thousand, 2003).

Sindelar, Shearer, Yendol-Hoppey, and Liebert indicate several factors to consider when examining successful inclusion (2006). Success comes with a shared responsibility between regular and special education teachers. Success does not rely solely on the responsibility of the teacher the district must also be a participant. Districts must show a commitment to implementing new practices and principals who support teachers and provide guidance in inclusive practices. An additional factor for success is school leadership. Schools that have consistent leadership that allow for the development of inclusion and are committed to the implementation will have more success. Finally acceptance is required. When the practices teachers are expected to implement are consistent with what teachers believe and the teachers

teaching style, success will come easier. The learning of new practices for the classroom is demanding of a teacher, when the teacher sees how it will benefit students, implementation will come (Sindelar et al., 2006).

An alternative to the regular education having sole responsibility for the teaching of disabled students in the regular education classroom is to implement collaborative or team teaching. In this situation the special education teacher does not maintain a separate classroom, instead the teacher goes to the setting the special education student is in and provides instruction there (Fisher, Frey, & Thousand, 2003). The teachers collaborate together on instruction and work as a team.

For those students who cannot be reasonably educated in the regular education room with support there is the option of resource. In this educational setting the students are removed from the regular education classroom and provided academic instruction in a special education setting. Students go to the resource classroom to receive instruction on the fundamental skills that were the initial source of their referral into special education (Henley et al., 2006).

The resource setting allows students to receive their instruction in small groups that can be tailored to their individual functioning level. Within these groups the special education teacher has the flexibility to choose materials, pace the instruction, and assign grades, which will foster student achievement (Zigmond, 2003). Students who are taught in this type of setting have the option to learn content in different ways and on varied schedules. When making the decision to place a student in a resource classroom several factors should be taken into consideration. A pull-out resource program may be appropriate if intensive instruction in a subject area is needed, the student requires explicit instruction to achieve success, the student requires behavior

management, or if the student needs to learn information that may not be necessarily taught to others in the general education classroom (Zigmond, 2003).

Standardized Testing

The birth of standardized testing occurred after World War I. The test process during this time period was not viewed as a potential threat to classroom teachers. In this era the test results were not used as a crucial measure for student achievement or teacher effectiveness (Madaus & John, 2012). Shortly after World War II, and in each subsequent decade, the impact of standardized testing began to take a different role in our classrooms. When NCLB was passed the schools saw the most direct shift in the importance of standardized testing (Madaus & John, 2012).

The guiding principle in NCLB is accountability. This accountability reaches students with disabilities. NCLB ensures teachers hold special education students to the same high standards that it expects from the regular education students (Bowen & Rude, 2006). When IDEA was initially amended in 1997 students with disabilities were required to participate in system-wide assessments (Perner, 2007). NCLB removed the final barrier of full participation of special education students in the regular education program and standardized testing (Bowen & Rude, 2006). The IEP team plays a crucial role in decision making when it comes to special education students and standardized assessment (Destefano & Shriner, 2003). When the IEP team is determining the appropriate assessment for a student accommodations and modifications, as well LRE, placement should be taken into consideration.

Teachers spend a great deal of time working on preparing for mandated standardized testing. In today's classroom assessment accountability is essential. The high stakes testing is

determining the “quality” of public education (Posner, 2004). Teachers are increasingly being judged on their students’ performance on standardized tests, and student test scores determine the perception of teacher competence. Standardized tests can be a difficult task for a student with learning disabilities.

In order for special education students to have success on standardized assessments they should be allowed the option to participate in the general curriculum with regular education peers. Many will need accommodations and modifications in the classroom as well as on the standardized test in which they are required to participate in (Bowen & Rude, 2006).

The accommodation strategies should be tailored to each individual student and not universally applied to all special education students. Every student may not need accommodations and modifications to achieve success, but for those who do need them the accommodation should be in place to measure student success not disability (Bowen & Rude 2006). Each state has policies on standardized testing and accommodations or modifications. The policies differ from how the decisions are made to even allowing accommodations or modifications. Some states recommend accommodations and modifications that other states forbid. Frequently mentioned accommodations include:

1. Presentation accommodations (including braille, read aloud, reading/re-reading/clarification of directions, and sign interpretation);
2. Equipment and materials accommodations (including amplification equipment, audio-/video-, calculators, and magnification equipment);
3. Response accommodations (including the use of computers, scribes, spell checkers, and writing in the test booklet);
4. Scheduling and timing accommodations (including extended time, testing over multiple days, testing at a time beneficial to the student, and the use of breaks)
5. Setting accommodations (including individual administration, separate rooms, small-group administration, and administration in a student’s home. (Thurlow, Lazarus, Thompson, & Morse, 2005, p. 236)

There is conflicting evidence for the effectiveness of accommodations and modifications used in assessment (Bowen & Rude 2006). The use of accommodations and modifications despite their possible ineffectiveness has dramatically increased since participation in state mandated testing is required (Thurlow et al., 2005). A concern that Bowen and Rude (2006) revealed in their research is fairness of assessment. Some states alleviated this concern by allowing the option of accommodations for all students. The use of accommodations is a federally mandated and commonly accepted practice; however, the actual effectiveness of their use has not been determined (Bowen & Rude 2006).

Tennessee Comprehensive Assessment Program

The Tennessee Comprehensive Assessment Program (TCAP) is a set of statewide assessments administered in Tennessee schools that measure students' skills and progress (Tennessee Department of Education, n.d.b.). This assessment is mandated for all students in grades 3-8. The test is available for grades K-2 if school systems choose to administer to these grades. The assessment includes multiple choice criterion referenced items for reading-language arts, math, science, and social studies. Tennessee is an English-only state; therefore, the assessment is administered in the English language only.

An alternative to the TCAP assessment that is offered to special education students is the Tennessee Comprehensive Assessment Program, Modified Academic Achievement Standards (TCAP MAAS). The TCAP MAAS is an alternative assessment that Tennessee received grant funding to produce. This assessment is for students in grades 3-8 and the purpose of the TCAP MAAS is to provide more accurate testing results that reflect academic progress with special education students. The test scores may be included in school systems' AYP and should not

include more than 2% of the systems' populations. The decision for a special education student to participate in this alternative assessment is an IEP team decision (Tennessee Department of Education n.d.c.). This decision should be based on what is best for the student, not what will benefit the system's AYP.

Special education students taking either the TCAP or the TCAP MAAS are allowed special accommodations or modifications on their assessment. The testing accommodations and modifications are changes made to the testing environment or test administration. Tennessee offers three different types of accommodations. Allowable accommodations are available to all students, English Language Learner Accommodations for those students who meet the English Language Learner specifications, and Special Accommodations that may only be used by an identified special education or 504 student (Tennessee Department of Education, n.d.b.). The special accommodations may be used if the IEP team feels they are appropriate for the individual student and will aid in the student achieving proficiency. Special accommodations include extended time, reading aloud or signing items or instructions, prompting, manipulatives, calculators, scribe, assistive technology, and special unique accommodations that require state department approval.

CHAPTER 3

RESEARCH METHODOLOGY

Introduction

This chapter describes the methods the researcher used in this nonexperimental quantitative study to determine if special education placement effects Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards Assessment (TCAP MAAS) standardized test scores. The study focused on identified special education students with mild to moderate disabilities in third, fourth, and fifth grades. The study was conducted in one east Tennessee public school district.

Research Questions and Null Hypotheses

The IEP Teams purpose is to make placement decisions for students with disabilities to ensure they are receiving FAPE in their LRE. Placement in a regular education inclusion program has been shown to promote academic achievement (Cushing, Carter, Clark, Wallis, & Kennedy, 2009). This study examined the differences in the scores of students who primarily received their academic instruction in inclusion classrooms and resource classrooms.

1. Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for those identified special education students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

H₀1: There is not a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for those identified special education students with mild to

moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings.

2. Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for those identified special education students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

H₀2: There is not a significant difference in the proficiency scale scores of TCAP MAAS Math scores for those identified special education students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings.

3. Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education third grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

H₀3: There is not a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education third grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings

4. Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education fourth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

H₀4: There is not a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education fourth grade students with mild to

moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings.

5. Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education fifth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

H₀5: There is not a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education fifth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings.

6. Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education third grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

H₀6: There is not a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education third grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings.

7. Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education fourth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

H₀7: There is not a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education fourth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings.

8. Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education fifth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

H₀8: There is not a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education fifth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings.

Population

The selected population for this study consisted of third, fourth, and fifth grade identified special education students with mild to moderate disabilities in an east Tennessee school system, who participated in the TCAP MAAS standardized testing, and whose scores were obtainable for the 2011-2012 school year. The school system includes 11 elementary schools, 4 middle schools, and 2 high schools. According to the Tennessee Department of Education (2011) the school system educated approximately 10,259 students in kindergarten through fifth grade. The district's elementary school population had 6.7% Black, 15.1% Hispanic, and 76.3% White in 2011.

Instrumentation

The academic achievement between students who received academic instruction in the resource room versus inclusion was compared through the TCAP MAAS test scores. The test used multiple-choice questions and had set time limits for completion. The test takers were special education students who could receive special accommodations on their test. The special accommodation of extended time may have been used by some of the test takers. The students

completed the test during the state mandated testing window. The subject areas chosen for comparison were Reading/Language Arts and Math.

IDEIA and NCLB require that all children participate in state mandated assessments. In 2007 the Department of Education announced that states could develop an assessment that would provide an appropriate measure of students skills on an assessment in which their disability would not hinder student success (Tennessee Department of Education, n.d.c). The TCAP MAAS is based on the same rigorous academic standards as the TCAP. However the alternate assessment is based on modified academic achievement standards that still cover grade level content in the same manner as the regular TCAP. In order for a student to earn proficiency or better, the score must reflect an understanding of grade level content (Cortiella, 2007).

The format of the TCAP MAAS has been adapted from the traditional TCAP assessment. There is a reduction on the number of test questions. For example if the regular TCAP for grade 3 has 60 questions in math, the TCAP MAAS may have 40. The questions eliminated may be the more difficult questions from the regular assessment. The questions must still cover the same grade level content. The language of the test questions is also altered. The reading level of the questions may be lowered to make it easier for the student to read. There is also an elimination of an item in the multiple choice answer option. The list of choice is reduced from four to three. The TCAP MAAS may contain more pictures and graphs to aid in the understanding of what is being asked. There is also more white space on the test. The questions are spread out over more pages in the test booklet. This can help eliminate distractions on the pages and help the student maintain focus on the questions being asked (Cortiella, 2007).

Data Collection

The data collected in this study were the TCAP MAAS Reading/Language Arts and Math scores of identified special education students who attend school in an east Tennessee school district. Permission for this study was obtained from the Director of Schools prior to completion of the study. The researcher received Instructional Review Board (IRB) permission from East Tennessee State University prior to collecting data. The data were acquired through Easy IEP and Pearson Power School database. The students were identified as having a disability and test type through Easy IEP. The TCAP MAAS Reading/Language Arts and Math scale scores were provided by Pearson Power School database. Several variables were critical in this study: students identified as having a disability, Reading/Language Arts and Math TCAP MAAS scores, and service location (resource or inclusion). No identifying information was used in the study. The study participants' information and school system information was used in a confidential manner, and the study meets all ethical standards.

Data Analysis

The data used in this study came from the TCAP MAAS Reading/Language Arts and Math test scores. The researcher conducted a series of independent t-tests to determine if there is a difference in the proficiency scores of special education students receiving academic instruction in inclusion or resource on Reading/Language Arts and Math TCAP MAAS test scores for the 2011-2012 school year. The Statistical Program for Social Sciences (SPSS) was used to analyze the data. The data were analyzed at the .05 level of significance.

CHAPTER 4

ANALYSIS OF THE DATA

Introduction

Previous research supported frequent placement in the regular education classroom as the best possible scenario for special education students. This study showed the differences in students' scale scores on the Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards (TCAP MAAS) who received their academic instruction in an inclusion setting or a resource setting. The dependent variables were proficiency scale scores on the Reading/Language Arts and Mathematics portions of the TCAP MAAS. The independent variables for this study were the two settings where academic instruction was provided.

Research Questions #1

Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for those identified special education students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings?

H₀1: There is not a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for those identified special education students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings.

An independent sample t-test was performed comparing the mean scale scores of the Reading/Language Arts portion of the TCAP MAAS for special education students who received

academic instruction in the inclusion classroom and special education students who received academic instruction in the resource classroom. An alpha level of .05 was used. The students who received instruction in the inclusion classroom ($M = 329.06$, $SD = 26.95$, $N = 152$) performed significantly better on the Reading/Language Arts portion of the TCAP MAAS than students who received instruction in the resource classroom ($M = 303.81$, $SD = 37.91$, $N = 58$). The test was significant, $t(80) = 4.64$, $p < .001$. Therefore the null hypothesis was rejected. Cohen's d was calculated to be 1.04, which indicated a large effect size. The 95% confidence interval around the difference between group means was 14.43 to 36.07. Figure 1 shows the 95% confidence intervals for the scale scores on the Reading/Language Arts portion of the TCAP MAAS. In general the results suggest students in the inclusion setting performed significantly higher than students in the resource setting.

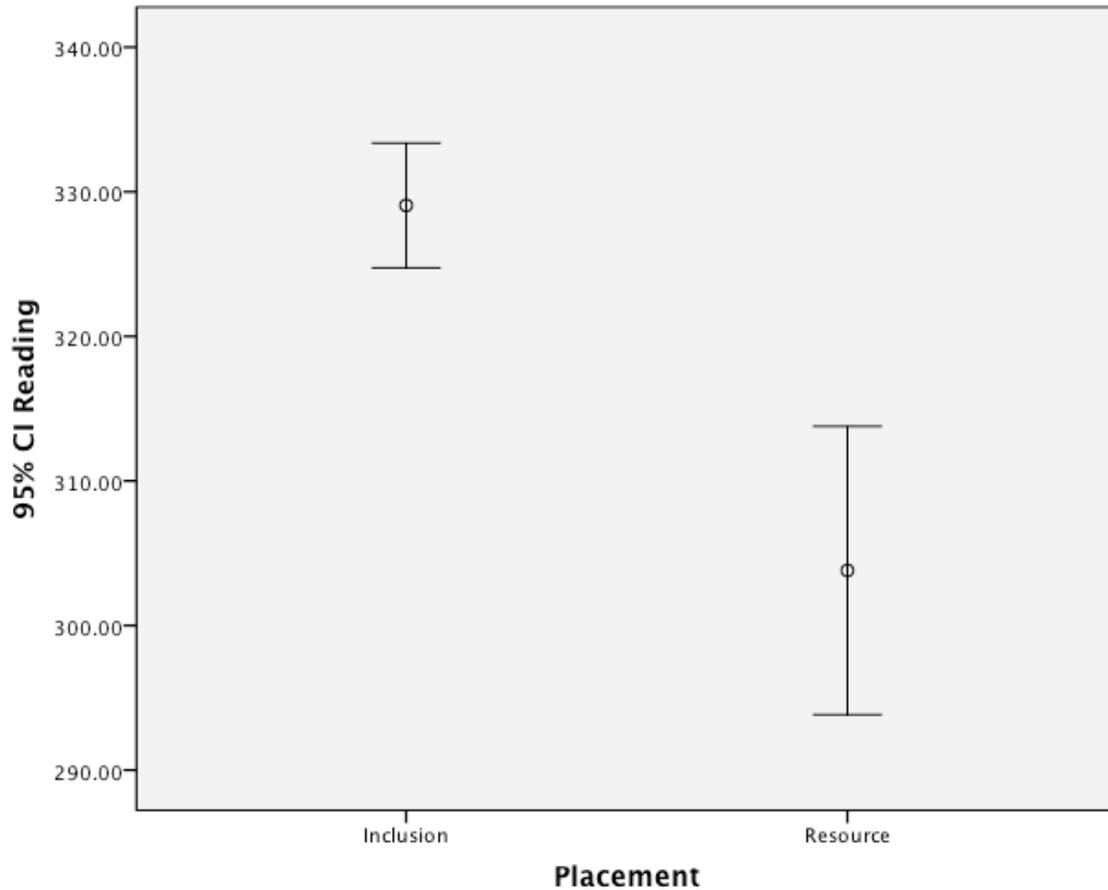


Figure 1: 95% Confidence Intervals for TCAP MAAS Reading/Language Arts Scale Scores

Research Question #2

Is there a significant difference in the proficiency scores of TCAP MAAS Math scores for those identified special education students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings?

H₀2: There was no significant difference in the proficiency scores of TCAP MAAS Math scores for those identified special education students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings.

An independent-sample t-test was performed comparing the mean scale scores of the Math portion of the TCAP MAAS for special education students who received academic instruction in the inclusion classroom and special education students who received academic instruction in the resource classroom. An alpha level of .05 was used. The students who received instruction in the inclusion classroom ($M = 338.67$, $SD = 35.36$, $N = 152$) received significantly higher scale scores on the Math portion of the TCAP MAAS than students who received instruction in the resource classroom ($M = 293.85$, $SD = 46.30$, $N = 58$). The test was significant $t(84) = 6.67$, $p < .001$. Therefore the null hypothesis was rejected. Cohen's d was calculated to be 1.46, which indicated a large effect size. The 95% confidence interval around the difference between group means was 31.46 to 58.19. Figure 2 shows the 95% confidence intervals for the scale scores on the Math portion of the TCAP MAAS. In general the results suggest students in the inclusion setting performed significantly higher than students in the resource setting.

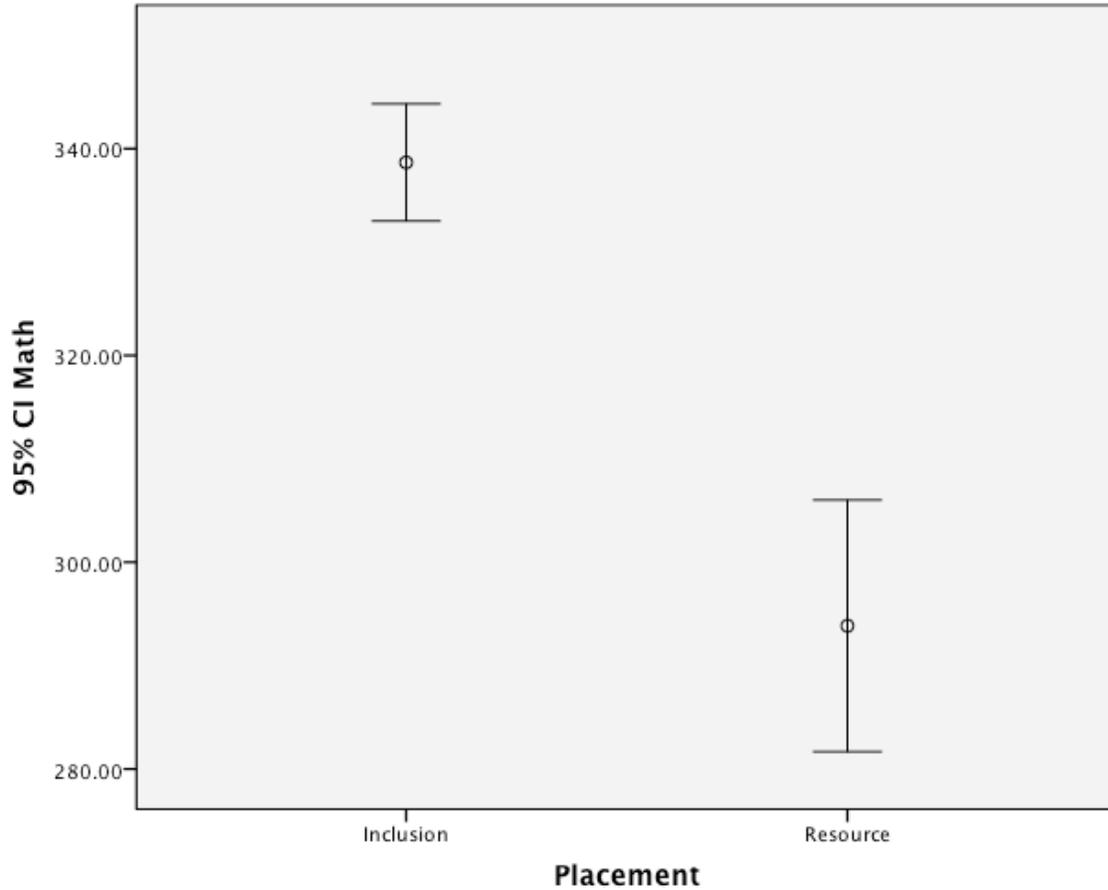


Figure 2: 95% Confidence Intervals for TCAP MAAS Math Scale Scores

Research Question #3

Is there a significant difference in the proficiency scores of TCAP MAAS Reading/Language Arts scores for identified special education third grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings?

H₀3: There is not a significant difference in the proficiency scores of TCAP MAAS Reading/Language Arts scores for identified special education third grade students with mild to

moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings.

An independent-sample t-test was performed comparing the mean scale scores on the Reading/Language Arts portion of the TCAP MAAS for special education students in the third grade who received academic instruction in the inclusion classroom and special education students in the third grade who received academic instruction in the resource classroom. An alpha level of .05 was used. Those third graders who received instruction in the inclusion classroom ($M = 326.31$, $SD = 25.97$, $N = 45$) received significantly higher scale scores on the Reading/Language Arts portion of the TCAP MAAS than third grade students who received instruction in the resource classroom ($M = 288.59$, $SD = 42.11$, $N = 27$). The test was significant, $t(38) = 4.20$, $p < .001$. Therefore the null hypothesis was rejected. Cohen's d was calculated to be 1.36, which indicated a large effect size. The 95% confidence interval around the difference between group means was 19.54 to 55.90. Figure 3 shows the 95% confidence intervals for the scale scores of third grade students on the Reading/Language Arts portion of the TCAP MAAS. In general the results suggest students in the inclusion setting performed significantly higher than students in the resource setting. In general the results suggest third grade students in the inclusion setting performed significantly higher than third grade students in the resource setting.

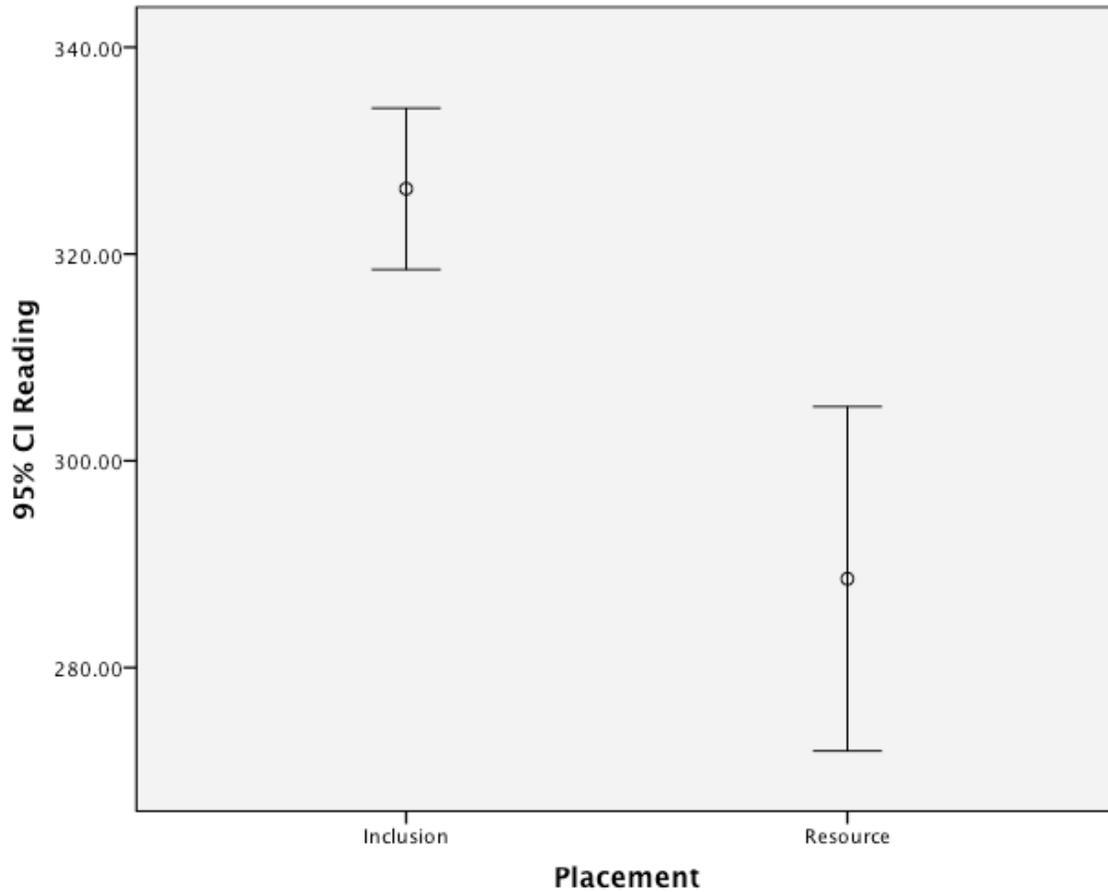


Figure 3: 95% Confidence Intervals for TCAP MAAS Reading/Language Arts Scale Scores for Third Grade

Research Question #4

Is there a significant difference in the proficiency scores of TCAP MAAS Reading/Language Arts scores for identified special education fourth grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings?

H₀4: There is not a significant difference in the proficiency scores of TCAP MAAS Reading/Language Arts scores for identified special education fourth grade students

with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings.

An independent-samples t-test was performed comparing the mean scale scores on the Reading/Language Arts portion of the TCAP MAAS for special education students in the fourth grade who received academic instruction in the inclusion classroom and special education students in the fourth grade who received academic instruction in the resource classroom. An alpha level of .05 was used. The fourth grade students who received instruction in the inclusion classroom ($M = 331.16$, $SD = 27.04$, $N = 45$) received significantly higher scale scores on the Reading/Language Arts portion of the TCAP MAAS than fourth grade students who received instruction in the resource classroom ($M = 315.53$, $SD = 24.62$, $N = 19$). The test was significant $t(62) = 2.17$, $p = .034$. Therefore the null hypothesis was rejected. Cohen's d was calculated to be .55, which indicated a medium effect size. The 95% confidence interval around the difference between group means was 1.21 to 30.05. Figure 4 shows the 95% confidence intervals for the scale scores of fourth grade students on the Reading/Language Arts portion of the TCAP MAAS. In general the results suggest fourth grade students in the inclusion setting performed significantly higher than fourth grade students in the resource setting.

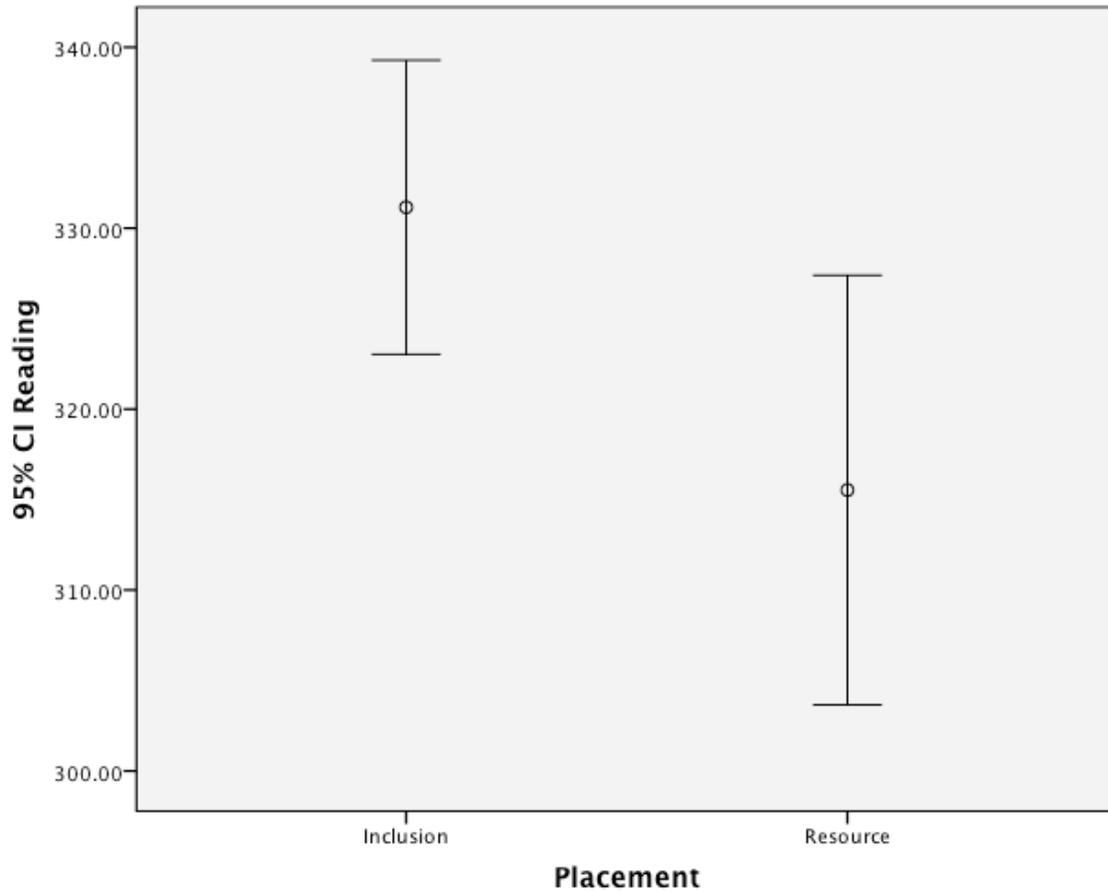


Figure 4: 95% Confidence Intervals for TCAP MAAS Reading/Language Arts Scale Scores for Fourth Grade

Research Question #5

Is there a significant difference in the proficiency scores of TCAP MAAS Reading/Language Arts scores for identified special education fifth grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings?

H₀5: There is not a significant difference in the proficiency scores of TCAP MAAS Reading/Language Arts scores for identified special education fifth grade students with mild to

moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings.

An independent-sample t-test was performed comparing the mean scale scores on the Reading/Language Arts portion of the TCAP MAAS for special education students in the fifth grade who received academic instruction in the inclusion classroom and special education students in the fifth grade who received academic instruction in the resource classroom. An alpha level of .05 was used. The scale scores on the Reading/Language Arts portion of the TCAP MAAS for fifth grade students who received instruction in the inclusion classroom ($M = 329.53$, $SD = 27.84$, $N = 62$) were not significantly different from fifth grade students who received instruction in the resource classroom ($M = 319.50$, $SD = 34.51$, $N = 12$). The test was not significant $t(72) = 1.10$, $p = .276$, ns. Therefore the null hypothesis was not rejected. Cohen's d was calculated to be .26, which indicated a small effect size. The 95% confidence interval around the difference between group means was -8.17 to 28.24. Figure 5 shows the 95% confidence intervals for the scale scores of fifth grade students on the Reading/Language Arts portion of the TCAP MAAS. In general the results suggest the difference between the reading scale scores of fifth grade students in the inclusion setting were not significantly different from fifth grade students in the resource setting. It should be noted that while not significantly different, those fifth grade students in the inclusion setting did perform slightly better than those students in the resource setting.

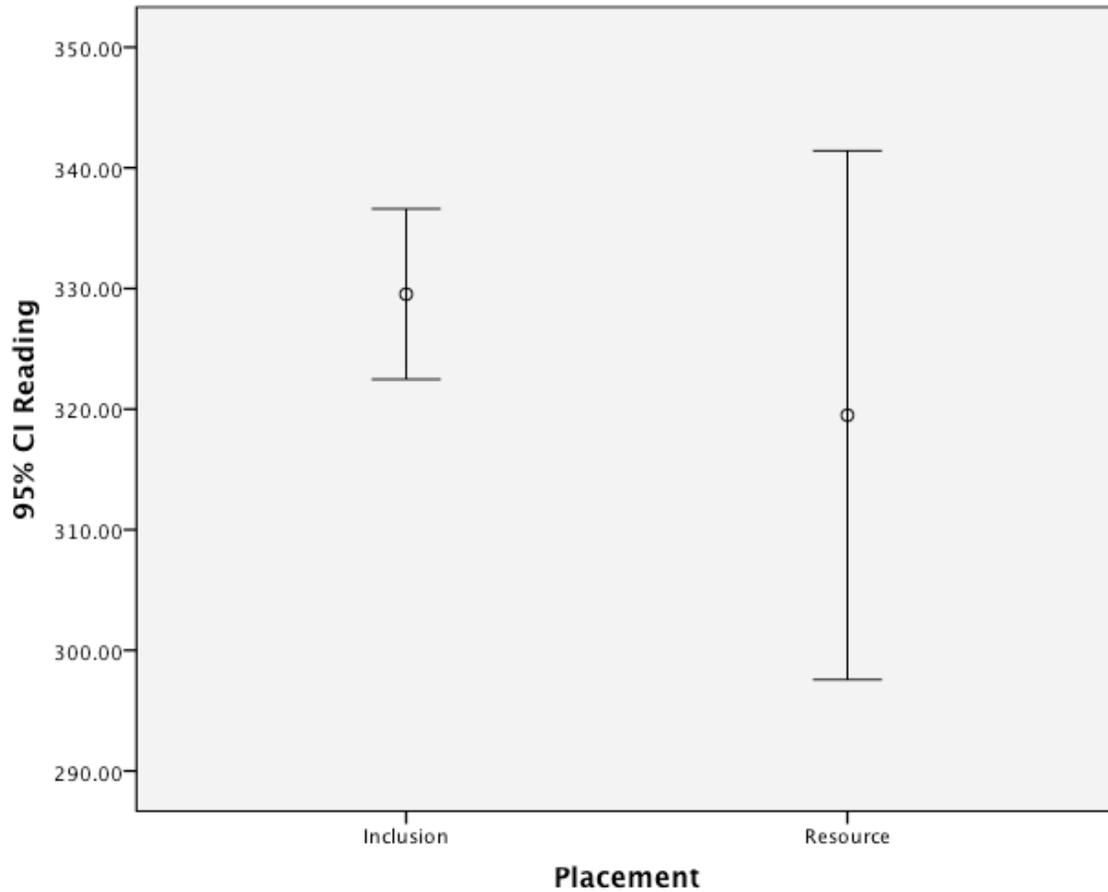


Figure 5: 95% Confidence Intervals for TCAP MAAS Reading/Language Arts Scale Scores for Fifth Grade

Research Question #6

Is there a significant difference in the proficiency scores of TCAP MAAS Math scores for identified special education third grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings?

H₀6: There is not a significant difference in the proficiency scores of TCAP MAAS Math scores for identified special education third grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings

An independent-sample t-test was performed comparing the mean scale scores on the Math portion of the TCAP MAAS for special education students in the third grade who received academic instruction in the inclusion classroom and special education students in the third grade who received academic instruction in the resource classroom. An alpha level of .05 was used. Those third graders who received instruction in the inclusion classroom ($M = 323.02$, $SD = 32.12$, $N = 45$) received significantly higher scale scores on the Math portion of the TCAP MAAS than third grade students who received instruction in the resource classroom ($M = 277.67$, $SD = 42.40$, $N = 27$). The test was significant $t(70) = 5.14$, $p < .001$. Therefore the null hypothesis was rejected. Cohen's d was calculated to be 1.36, which indicated a large effect size. The 95% confidence interval around the difference between group means was 27.74 to 62.97. Figure 6 shows the 95% confidence intervals for the scale scores of third grade students on the Math portion of the TCAP MAAS. In general the results suggest third grade students in the inclusion setting performed significantly higher than third grade students in the resource setting.

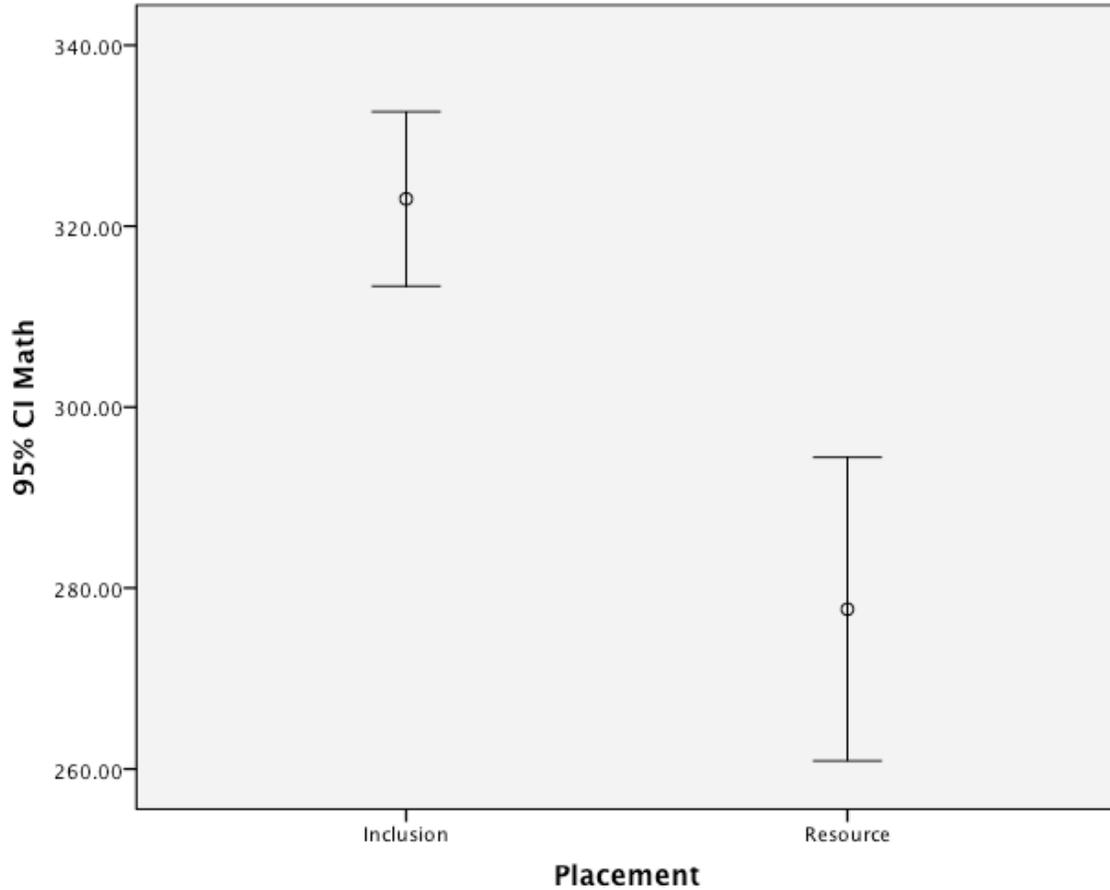


Figure 6: 95% Confidence Intervals for TCAP MAAS Math Scale Scores for Third Grade

Research Question #7

Is there a significant difference in the proficiency scores of TCAP MAAS Math scores for identified special education fourth grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings?

H₀7: There is not a significant difference in the proficiency scores of TCAP MAAS Math scores for identified special education fourth grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings.

An independent-sample t-test was performed comparing the mean scale scores on the Math portion of the TCAP MAAS for special education students in the fourth grade who received academic instruction in the inclusion classroom and special education students in the fourth grade who received academic instruction in the resource classroom. An alpha level of .05 was used. The fourth grade students who received instruction in the inclusion classroom ($M = 331.69$, $SD = 26.11$, $N = 45$) received significantly higher scale scores on the Math portion of the TCAP MAAS than fourth grade students who received instruction in the resource classroom ($M = 298.05$, $SD = 44.71$, $N = 19$). The test was significant $t(23) = 3.07$, $p = .005$. Therefore the null hypothesis was rejected. Cohen's d was calculated to be 1.28, which indicated a large effect size. The 95% confidence interval around the difference between group means was 10.96 to 56.31. Figure 7 shows the 95% confidence intervals for the scale scores of fourth grade students on the Math portion of the TCAP MAAS. In general the results suggest fourth grade students in the inclusion setting performed significantly higher than fourth grade students in the resource setting.

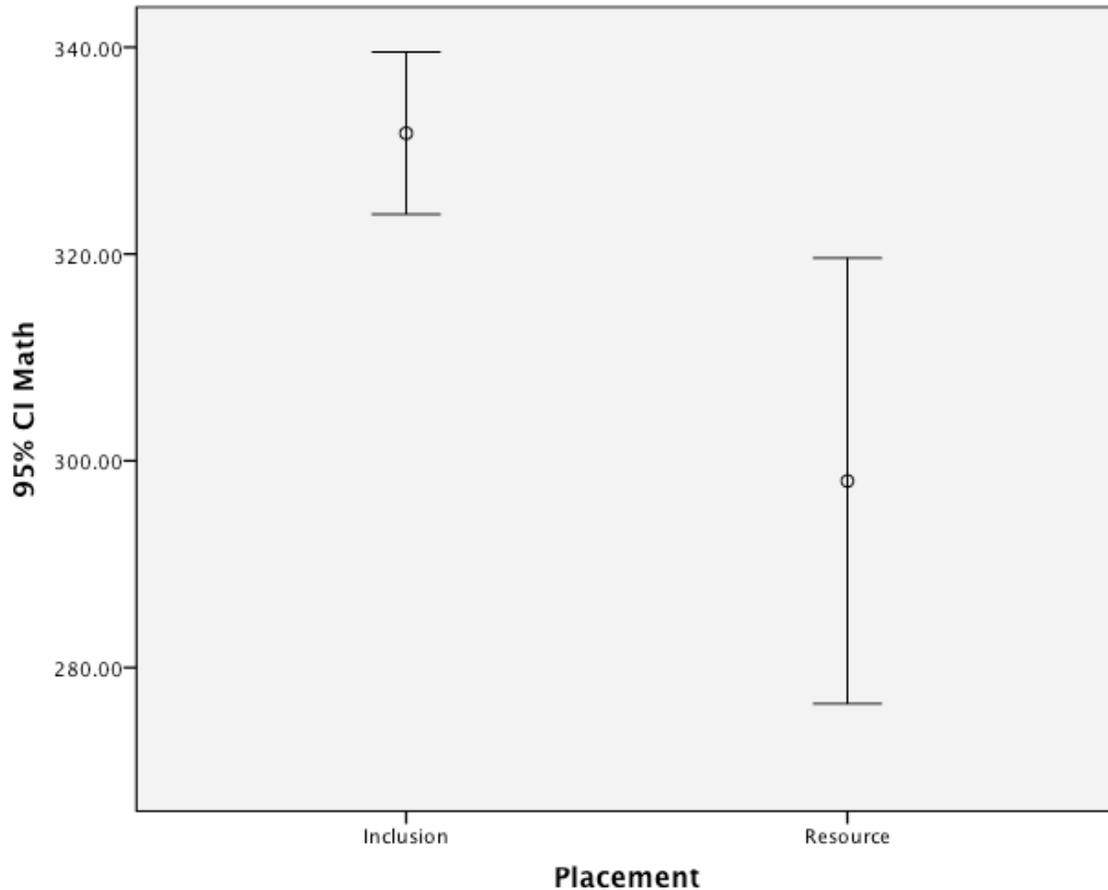


Figure 7: 95% Confidence Intervals for TCAP MAAS Math Scale Scores for Fourth Grade

Research Question #8

Is there a significant difference in the proficiency scores of TCAP MAAS Math scores for identified special education fifth grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings?

H₀8: There is not a significant difference in the proficiency scores of TCAP MAAS Math scores for identified special education fifth grade students with mild to moderate disabilities who received academic instruction in inclusion versus the scores of students in resource settings.

An independent-sample t-test was performed comparing the mean scale scores on the Math portion of the TCAP MAAS for special education students in the fifth grade who received academic instruction in the inclusion classroom and special education students in the fifth grade who received academic instruction in the resource classroom. An alpha level of .05 was used. The fifth grade students who received instruction in the inclusion classroom ($M = 355.10$, $SD = 36.99$, $N = 62$) received significantly higher scale scores on the Math portion of the TCAP MAAS than fifth grade students who received instruction in the resource classroom ($M = 323.58$, $SD = 44.12$, $N = 12$). The test was significant $t(72) = 2.62$, $p = .011$. Therefore the null hypothesis was rejected. Cohen's d was calculated to be .06, which indicated a small effect size. The 95% confidence interval around the difference between group means was 7.52 to 55.51. Figure 8 shows the 95% confidence intervals for the scale scores of fifth grade students on the Math portion of the TCAP MAAS. In general the results suggest fifth grade students in the inclusion setting performed significantly higher than fifth grade students in the resource setting.

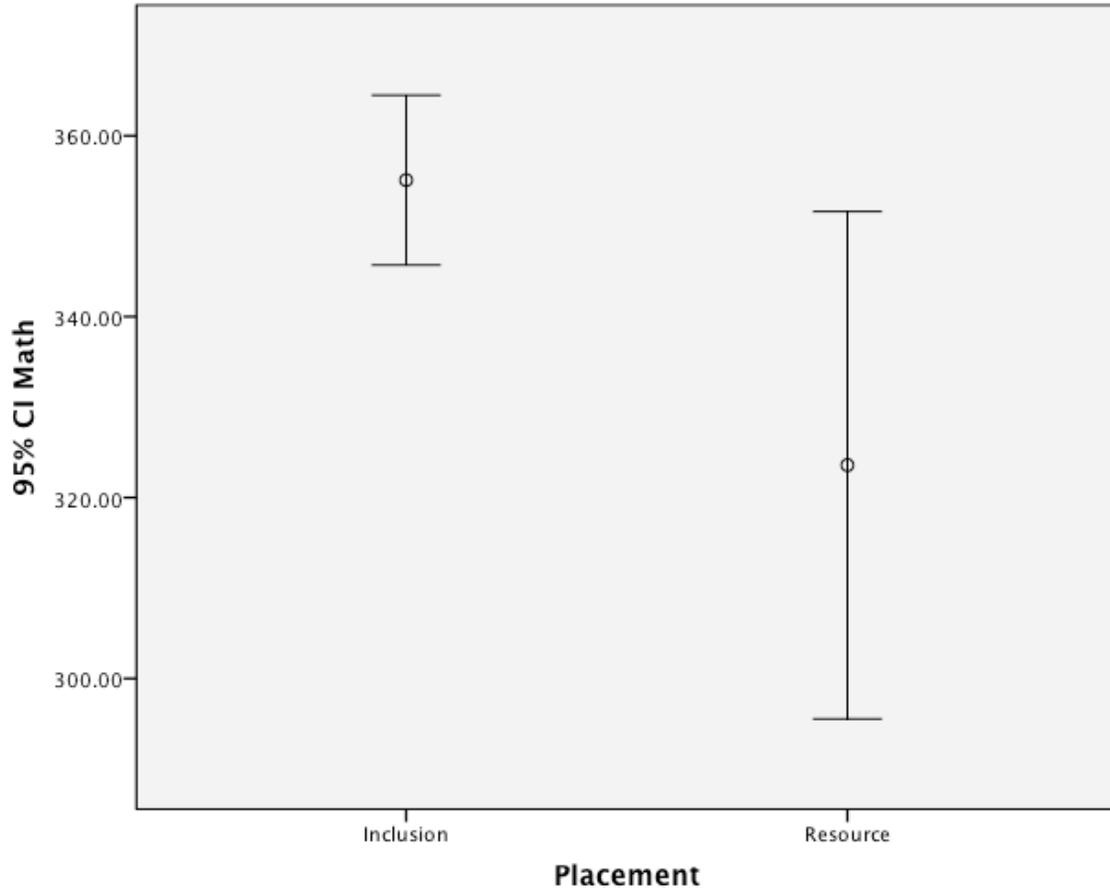


Figure 8: 95% Confidence Intervals for TCAP MAAS Math Scale Scores for Fifth Grade

Summary

A series of independent-sample t-tests analysis was conducted to evaluate the differences in scale scores on the Reading/Language Arts and Math portions of the Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards (TCAP MAAS) for special education students in third, fourth, and fifth grades overall and by grade level who received academic instruction in regular education inclusion classrooms or the resource classrooms. A statistically significant difference was found for all analyses except for the fifth grade Reading/Language Arts scale scores. In every case special education students who

received instruction in the regular education inclusion placement received higher scale scores than their peers who were taught in the resource classroom.

CHAPTER 5
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR PRACTICE AND
FURTHER RESEARCH

Introduction

This chapter summarizes and explains the data analysis in relation to determining the most effective instructional placement for special education students with mild to moderate disabilities as evidenced by TCAP MAAS scores. The Individualized Education Program (IEP) team determines the appropriate placement for individual students. The placement decision is difficult despite guidance the federal law provides. Special education placement is controversial and the most frequently litigated (Yell & Katsiyannis, 2004). IDEA requires that the IEP team make a good faith effort to place and educate students with disabilities in their least restrictive environment. This placement decision whether it is an inclusion classroom or a resource setting should be based on student ability and not disability (Yell, Katsiyannis, Ryan, McDuffie, & Mattocks, 2008).

Summary

This study showed significant differences in the TCAP MAAS scaled scores of those students receiving their instruction in a regular education inclusion classroom versus a resource classroom. The students placed in inclusion scored significantly higher in every area except for the fifth grade Reading/Language Arts, which was only slightly but not significantly higher. The dependent variable in the study was the Tennessee Comprehensive Assessment Program Modified Academic Achievement Standards (TCAP MAAS) scaled scores. The independent

variable was student placement. Placement is regular education inclusion or special education resource class. The data analyses reported are based upon eight hypothesis that were tested at a .05 level of significance. The purposeful sample for this research was 210 third, fourth, and fifth grade special education students with mild to moderate disabilities who participate in the TCAP MAAS assessment. The data collected was from 2011-2012 school year. The students all attend school in the same east Tennessee school district. The students' scores were pulled from 11 elementary schools and the sampling population represents a variety of demographics such varying minorities, students with disabilities and students of low socioeconomic levels. The statistical analyses were guided by the research questions in Chapter 1 and expanded on in Chapter 3.

Findings

A series of independent sample t-tests were conducted to determine whether a significant difference in the TCAP MAAS scale scores existed between students receiving their academic instruction in an inclusion setting versus resource in Reading/Language Arts and Math for those students in third, fourth, and fifth grades.

Research Question 1

Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for those identified special education students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

An independent t-test was used to determine if placement in inclusion versus resource placement impacts TCAP MAAS proficiency in Reading/Language Arts. There were 210

students in this population. There was a significant difference found in the scale scores of inclusion versus resource students' scale scores. The third, fourth, and fifth grade students who received their academic instruction in the inclusion setting scored significantly higher on the TCAP MAAS Reading/Language Arts test than the third, fourth, and fifth grade students who received their academic instruction in the resource room.

Research Question 2

Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for those identified special education students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

An independent t-test was used to determine if placement in inclusion versus resource placement impacts TCAP MAAS proficiency in Math. There were 210 students in this population. There was a significant difference found in the scale scores of inclusion versus resource students' scale scores. The third, fourth, and fifth grade students who received their academic instruction in the inclusion setting scored significantly higher on the TCAP MAAS Math test than the third, fourth, and fifth grade students who received their academic instruction in the resource room.

Research Question 3

Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education third grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

An independent t-test was used to determine if placement in inclusion versus resource placement impacts TCAP MAAS proficiency in Reading/Language Arts for students in third

grade. There were 72 students in this population. There was a significant difference found in the scale scores of third grade inclusion students versus third grade resource students' scale scores. The third grade students who received their academic instruction in the inclusion setting scored significantly higher on the TCAP MAAS Reading/Language Arts test than those third grade students who received their academic instruction in the resource room.

Research Question 4

Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education fourth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

An independent t-test was used to determine if placement in inclusion versus resource placement impacts TCAP MAAS proficiency in Reading/Language Arts for students in fourth grade. There were 64 students in this population. There was a significant difference found in the scale scores of fourth grade inclusion students versus fourth grade resource students' scale scores. The fourth grade students who received their academic instruction in the inclusion setting scored significantly higher on the TCAP MAAS Reading/Language Arts test than those fourth grade students who received their academic instruction in the resource room.

Research Question 5

Is there a significant difference in the proficiency scale scores of TCAP MAAS Reading/Language Arts scores for identified special education fifth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

An independent t-test was used to determine if placement in inclusion versus resource placement impacts TCAP MAAS proficiency in Reading/Language Arts for students in fifth grade. There were 74 students in this population. There was no significant difference found in the scale scores of fifth grade inclusion students versus fifth grade resource students. The fifth grade students who received their academic instruction in the inclusion setting scored significantly higher than those in the resource setting but not significantly higher on the TCAP MAAS Reading/Language Arts test.

Research Question 6

Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education third grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

An independent t-test was used to determine if placement in inclusion versus resource placement impacts TCAP MAAS proficiency in Math for students in third grade. There were 72 students in this population. There was a significant difference found in the scale scores of third grade inclusion students versus third grade resource students' scale scores. The third grade students who received their academic instruction in the inclusion setting scored significantly higher on the TCAP MAAS Math test than those third grade students who received their academic instruction in the resource room.

Research Question 7

Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education fourth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

An independent t-test was used to determine if placement in inclusion versus resource placement impacts TCAP MAAS proficiency in Math for students in fourth grade. There were 64 students in this population. There was a significant difference found in the scale scores of fourth grade inclusion students versus fourth grade resource students' scale scores. The fourth grade students who received their academic instruction in the inclusion setting scored significantly higher on the TCAP MAAS Math test than those fourth grade students who received their academic instruction in the resource room.

Research Questions 8

Is there a significant difference in the proficiency scale scores of TCAP MAAS Math scores for identified special education fifth grade students with mild to moderate disabilities who receive academic instruction in inclusion versus the scores of students in resource settings?

An independent t-test was used to determine if placement in inclusion versus resource placement impacts TCAP MAAS proficiency in Math for students in fifth grade. There were 74 students in this population. There was a significant difference found in the scale scores of fifth grade inclusion students versus fifth grade resource students' scale scores. The fifth grade students who received their academic instruction in the inclusion setting scored significantly higher on the TCAP MAAS Math test than those fifth grade students who received their academic instruction in the resource room.

Recommendations for Practice

A limited number of studies exist regarding the impact of special education placements on student achievement (Soukup, Wehmeyer, Bashinski, & Bovaird, 2007). This study showed students who receive their education in the regular education inclusion classroom tend to have a

higher proficiency rate than those who receive instruction in the resource classroom. While this study showed inclusion to be the most effective placement, previous research has indicated that is not always the case. In particular Leinhardt and Pally (1982) indicate that setting is not the determinant of student success. They explain that if effective instructional practices are being implemented the special education student will benefit. This is why the implementation of research based educational practices will benefit students regardless of the setting. However according to Thurlow (2002) it is easier for students who are included in the regular education classrooms to be exposed to the general education curriculum and standards. The inclusion of special education students promotes high expectations. Students who have not been receiving regular education inclusion instruction may have been excluded from higher expectations. As a result their education has been “watered down” when it should not have been. This has suppressed the academic performance of students in the resource setting. It is important for disabled students to have exposure to grade level content standards. It is also important to for disabled students to have a socially appropriate placement. Student’s benefit from having age appropriate peers to model from and consistent interaction with peers provides this. Regular and special education teachers should work as partners and the special education student should feel as if they belong in the class. Professional development that focuses on inclusion is an excellent tool to expand teachers’ knowledge in this area. School leaders should provide structures that support the following recommendations.

1. Time should be provided for the regular and special education teacher to assess and plan quality instruction together.
2. School leaders should honor the coteaching schedule. The time allotted for the regular and special education teacher to provide instruction together should not be interrupted.

3. School leaders should provide opportunities for regular and special education teachers to attend professional development together to enhance their curricular knowledge.
4. School leaders should monitor teachers to ensure the accommodations and modifications detailed in the IEPs are being implemented.

Recommendations for Further Research

The purpose of this study was to determine if there is a difference in the TCAP MAAS achievement test scores for special education students based on their placement. The study showed special education students who received their academic instruction in inclusion classrooms scored higher on the TCAP MAAS. Based on the data analyzed in this study special education students who receive their academic instruction in inclusion rooms tend to score higher on the TCAP MAAS than those in resource rooms. These recommendations are proposed for adding to the existing research on providing the most appropriate educational placement for students with mild to moderate disabilities.

1. This study should be replicated using a larger population.
2. This study should be replicated by completing a comparison study of a district that has a strong inclusion program versus a district that has a strong resource program.
3. This study should be replicated to determine if there is a relationship between identified disability and proficiency scores.
4. This study should be replicated using the regular TCAP achievement test to see if the modified assessment inflated the proficiency level.
5. This study should be replicated to include accommodation and modifications used during achievement testing.

6. This study should be replicated by breaking the student population into gender, race, and socioeconomic categories.

The future of education is accountability. Our educational history has provided insight to which educational practices have been effective for all students. Placement must be taken into consideration when looking at achievement of special education students. Further research into this topic will allow school systems to make informed decisions regarding the placement of special education students.

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APPENDIX
IRB Approval

April 10, 2013

Christy Hogan-Young
1121 Pullen Rd.
Whitesburg, TN 37891

Dear Ms. Hogan-Young,

Thank you for recently submitting information regarding your proposed project "Standardized Testing of Special Education Students: A Comparison Study of Service Type and Test Scores."

I have reviewed the information, which includes a completed Form 129.

The determination is that this proposed activity as described meets neither the FDA nor the DHHS definition of research involving human subjects. Therefore, it does not fall under the purview of the ETSU IRB.

IRB review and approval by East Tennessee State University is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities are human subject research in which the organization is engaged, please submit a new request to the IRB for a determination.

Thank you for your commitment to excellence.

Sincerely,
Chris Ayres
Chair, ETSU IRB

VITA

CHRISTINE L. HOGAN-YOUNG

Personal Data:

Date of Birth: June 26, 1976
Place of Birth: Lithia Springs, Georgia
Marital Status: Married

Education:

East Tennessee State University: Johnson City, TN
Educational Leadership, Ed.D.
May 2013

Lincoln Memorial University: Harrogate, TN
Educational Administration and Supervision, Ed.S.
May 2005

University of Tennessee: Knoxville, TN
Special Education, M.S.
May 1999

University of Tennessee: Knoxville, TN
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Professional Experience:

Teacher, Lincoln Heights Elementary, Morristown, TN
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Principal Designee, Lincoln Heights Elementary, Morristown, TN
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