2015

# Evaluation of a Supplemental Kinesthetic-Based Reading Program for Disabled Students

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COLLEGE OF EDUCATION

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Kenneth W. Hodges

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Doctoral Study Submitted in Partial Fulfillment

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## Abstract

This research study addressed the need for an evaluation of the effectiveness of teacher-written supplemental reading lesson plans for elementary students with significant disabilities. The study school implemented the supplemental reading lesson plans in the 2010–2011 school year. The theories of Howard Gardner's multiple intelligences and Maria Montessori's individualized learning process guided this research. The research question focused on exploring the effectiveness of the lesson plans. Participants included 6 students and their parents, 3 teachers, and 1 principal. Closed- and open-ended survey responses were collected from each participant, and 3 classroom observations were completed. Through descriptive analysis of student assessment scores, closed-ended stakeholder survey questions, and inductive analysis of an open-ended stakeholder questionnaire and classroom observations, these themes emerged: positive effects on lessons, opportunities for refining the collaborative process, and negative effects of collaboration. After further analysis and review of related literature, the program evaluation recommendations of this study included improving the content of each lesson through the use of lesson study, a form of long-term professional development in which teams of teachers collaboratively plan, research, and study their lesson delivery as a way to determine how students learn best. The evaluation and recommendations of this research study could lead to positive social change by emphasizing that it is vital for teachers of exceptional students to tailor their instructional delivery strategies to meet the specific reading instructional needs of students with significant disabilities.

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# Dedication

I want to take this opportunity to dedicate this doctoral study and to say thank you to my mother, Jeanette Hodges and my father, J.L. Hodges, for their unwavering support of my educational efforts throughout my life. You have always been there beside me cheering me to be the best I can be. I thank you from instilling in me the importance of education and how to make an impact in the lives of others. You are both simply the best!

# Acknowledgments

I want to thank Dr. Diana Greene and Dr. Tom Cavanagh, Walden Faculty, for helping me complete my doctoral study even though it was a long intense and ever evolving process. In addition, I would like to thank my principal, Donna Swindle, for her support and assistance throughout the completion of this project. Her life, her efforts, and her unwavering support of our special students have been such motivation to me and my work with our unique student population. I want to thank my good friend, Barbara Goldstein for her assistance in editing and brainstorming with me as I completed this doctoral study. Finally, I want to let my sister, Jennifer Atkinson, know how important her on-going messages of support were to me in getting my dissertation completed. You are a God given blessing to me and I am proud to be your big brother.

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Section 1: Introduction to the Study

## Introduction

Teachers are accountable for the learning that takes place inside their classrooms. Most often, students take a statewide assessment to measure content knowledge in each grade level. These statewide assessments are used to measure a teacher's effectiveness in the classroom (Browder et al., 2009). The No Child Left Behind legislation sets forth specific requirements for assessing student mastery of learning standards for grades K-12 (Florida Department of Education, 2009). General education students in Florida are required to take the Florida Comprehensive Assessment Test (FCAT) and students who have significant cognitive, physical, or behavior disabilities take an alternative assessment (Florida Department of Education, 2009). Moreover, students with significant cognitive, physical, or behavior disabilities must take an assessment that measures their mastery alternate achievement standards by grade level (Florida Department of Education, 2009). At the participating school, all students in Grades 3-11 are required to take the alternate state assessment, which in Florida is called the Florida Alternate Assessment (FAA). It is designed specifically for students with significant cognitive disabilities (2009-2010 Florida School Improvement Plan, 2010).

At the participating school, teachers found that they do not have curriculum materials available from education publishers that specifically support the alternate learning objectives tested by the alternate assessment. As a result, these teachers were forced to develop their own materials that focus on the specific objectives provided within these alternate achievement standards. For example, a reading program was

created for students in Grades K-5 that incorporates research-based strategies for this unique student population which included lesson plans, hands-on-experiences, and lesson assessments. The development of these materials helped the teachers bridge a gap in existing curriculum materials by providing content specific lessons on the standards tested by the alternate state assessment. In this section, the research problem is defined, rationale of the problem discussed, evidence of the problem provided through a review of the current literature, research questions identified, and implications of the problem evaluated.

## Problem Statement

At the time of this study, I worked at an Exceptional Student Education (ESE) center school that serves students in prekindergarten through adulthood (age 22). All of these students had significant cognitive, physical, or behavior disabilities that impair their ability to successfully perform in a general education classroom. In order for a student to be placed at the participating school, which is an ESE Learning Center, the child's Individual Education Plan (IEP) team must agree this is the least restricted environment for that student. In addition, all students at the participating school worked on alternate state curriculum standards, had an IEP, took the FAA, and sought a special diploma.

Moreover, the participants who take the FAA are students in Grades 3-11. During the 2010-2011 school year, the reading proficiency level was 18% (2010-2011 Florida School Improvement Plan, 2011). The 2010-2011 school year was considered the base year for purposes of this doctoral study. The school had not made Adequate Yearly Progress (AYP) for the past 3 school years as defined by the No Child Left Behind

Legislation. Even though all of the students take the alternate assessment, the participating school still must meet AYP standards (20010-2011 Florida School Improvement Plan, 2011). By not making AYP, the school is subject to intense review and oversight by state and district evaluation teams. However, because the school is an ESE center, the school will not reach the point in corrective action where the staff is terminated and replaced with another staff. In an effort to meet these accountability requirements, teachers and administration sought to investigate and develop a supplemental reading program that specifically addressed the alternate state standards for Grades K-5 which utilized research-based instructional strategies specific to our unique student population.

**Evidence of the Problem from the Professional Literature**

The NCLB legislation included multiple accountability measures for all students including those with significant cognitive disabilities (Zigmond & Kloo, 2009). These measures prohibited the exclusion of this specific student population from statewide assessments. As a result, states were charged with creating their own alternate achievement assessment procedures (Browder et al., 2004). One fundamental component of this alternate achievement assessment process was the development of alternate achievement standards. These standards are now the basis for the state alternate assessment. These standards were created for each academic subject (e.g., Reading, Math, and Science). Yovanoff and Tindall (2007) found that Grade 3 grade-level reading activities were appropriate for subsequent use in an alternate assessment. In addition, legislators were concerned that educators would include students in this alternate

assessment process who could, with appropriate accommodations, take the regular statewide achievement tests (Zigmond & Kloo, 2009). As a result, students were required to meet specific criteria to be included in this alternate assessment (Zigmond & Kloo, 2009).

Moreover, IDEA, Section 612, Part B, stated that students with disabilities would be included in statewide and even district assessments (Zigmond & Kloo, 2009). This Section of IDEA provided direction to IEP teams regarding the exclusion of students from the regular assessments, even with accommodations. The teams must describe *why* the child cannot participate in the regular assessment and *how* this could be possible for the student (Zigmond & Kloo, 2009). The students included in an alternate assessment must have demonstrated persistent difficulty in finding success in a general education program (Zigmond & Kloo, 2009). Policy makers wanted to ensure that all students, no matter the complexity of their disability, had an opportunity to participate in an education system that promoted high expectations for achievement, increased the participation of students with disabilities in general education, promoted the use of effective instructional strategies, and delivered higher academic achievement of this student population (Zigmond & Kloo, 2009). Teachers told education policy makers that flexibility in the format and delivery of an alternate assessment system and alternate achievement standards were necessary (Zigmond & Kloo, 2009). As a result, policy makers have been granted the opportunity to develop additional alternate assessments. However, these assessments must still be focused on the alternate achievement standards.

The IEP team must undertake the challenge of determining if a student should be included in an alternate assessment or use alternate achievement standards (Zigmond & Kloo, 2009). The team should consider these questions:

- How has the student performed in academic subjects (consideration should be given to three or more years)?
- At which grade level is the student currently performing?
- Has the student received high quality instruction?
- Does the student require individualized instruction?
- What supports are needed for the student?
- How has the student performed in a general education classroom?

Given these considerations, it is expected that at most only 2% of the total student population should be included in an alternate assessment process (Zigmond & Kloo, 2009). There are still many questions remaining as to how this expectation is examined if it exceeds the 2% quota (Zigmond & Kloo, 2009).

In a 2006 study conducted by Kohl, McLaughlin, and Nagle from the University of Maryland, 16 states were randomly selected to examine how these states implemented the alternate assessment and alternate achievement standard mandates for students with the most severe disabilities. The states that participated included: California, Colorado, Delaware, Florida, Indiana, Kansas, Louisiana, Maryland, Massachusetts, Nebraska, New York, North Carolina, Ohio, South Carolina, Texas, and West Virginia. In this study, telephone interviews were conducted with participants in January to August 2005 (Kohl

et al., 2006). Also, a 32-item questionnaire was sent to collect specific information on the state's alternate assessment procedures and protocols. A summary of the 2006 study of alternate assessment instruments and procedures are included below.

- Use of assessments: Thirteen states have statewide alternate assessments; three states allow local districts to determine which alternate assessment that will be administered.
- Number of alternate assessments: Seven states have only one alternate assessment; nine states have alternate assessment options. Many of the states reported work on developing additional alternate assessments.
- Types of assessments: Ten states use portfolios as the primary tool for collecting and determining student progress; six states use performance tasks (in four states this is part of the portfolio); two states use teacher checklists or inventories only.
- Student participation decisions: Sixteen states allow the IEP to determine student participation in an alternate assessment.
- Content of alternate assessments: This is a very complicated process. Nine states the teacher determines; six states one or more IEP team members of the team decide; one state the content was determined at the state-level.
- Technical adequacy of assessments: Nine states had conducted validity and alignment studies; one state required teachers to submit a separate rating for student performance for each area of the alternate achievement standards. There

was little available data to confirm the validity and alignment of these assessments to alternate achievement standards (Kohl et al., 2006).

The scores from these alternate achievement tests help determine the effectiveness of the classroom teacher and the school (Kohl et al., 2006). Additionally, there are few materials available to teachers that are specifically written in correlation with the state's alternate achievement standards and target this unique student population (Kohl, et al., 2006). Historically, teachers of this student population focused on teaching functional skills (Browder et al., 2004). As a result, teachers have risen to the occasion by creating and delivering focused standards-based lessons in academic and functional skills (Kohl et al., 2006). In response, the students responded by demonstrating content knowledge in academic subjects that exceeded their teachers' expectations (Kohl et al., 2006).

**Evidence of the Problem at the Local Level**

At the participating school, the principal noted that there is a lack of agreement about the effectiveness of the supplemental reading program created to help teachers meet the curriculum needs of their students (personal communication, August 1, 2013). Therefore, there was a lack of understanding regarding the effectiveness of the program.

In 1997, amendments were passed to the IDEA legislation that called for each state to provide students with disabilities access to the general education curriculum. Moreover, this legislation mandated an alternate assessment for these students to evaluate their performance in academic subject areas of reading, math, and science (Browder et al., 2009). In addition, state education leaders were also responsible for creating a different assessment for students with disabilities when these individuals could not

participate in the regular statewide assessments. This alternate testing included those students with severe disabilities (Browder et al., 2009). The State of Florida defined its alternate assessment as "…designed specifically to measure student mastery of the *Sunshine State Standards Access Points*" (Florida Department of Education, 2009). The state emphasized that these standards are only to be used with students with the most significant disabilities.

The first step in providing students with disabilities access to the general education curriculum was to define the achievement standards for each grade level and for each academic subject. In Florida, these alternate achievement standards for students with disabilities are called Sunshine State Standard Access Points. The access points were defined using three levels of complexity. The first level of complexity was defined as the participatory level. At this level, students are at the awareness level and are at the stage of recognition of fundamental literacy components such as a letter or a single number (Florida Department of Education, 2009). The next level of complexity was called the supported level. At this stage, students are required to identify skills, recall facts, or perform basic academic skills. For example, these skills may include reading one or two words or solving very simplistic math problems (Florida Department of Education, 2009). The independent level of complexity focuses on skills such as comparing, organizing, or organizing information such as identifying the main idea of a story or completing a more complex math problem (Florida Department of Education, 2009).

Florida's Alternate Assessment has nine performance areas that are divided into three performance categories. These categories are called emergent, achieved, and commended. In Levels 1 through 3, the student score reflects performance in the emergent category. These students are working on developing basic literacy skills that requires prompting by the teacher. In levels four through six, the student performs in the achieved category. At this level, the student has acquired academic specific skills and is considered to be proficient at this level. Students scoring at levels seven through nine have mastered and are able to generalize skills that have been presented and mastered during the school year (Florida Department of Education, 2009). An academic gain on this assessment is when the student increases his/her performance by one level (e.g., Level 2 to Level 3) or when he/she maintains their performance when scoring at levels four through nine (Florida Department of Education, 2009). Beginning in the 2009 school year, student scores on the alternate assessment were used to identify school improvement grades (Florida Department of Education, 2009).

Teachers who taught students in Grades K-5 did not have specially designed reading curriculum available to address the Sunshine State Standard Access Points. The materials and curriculum programs commercially available from traditional textbook companies did not address Access Point content. As a result, in 2009, the teachers at this ESE Center School decided to develop reading lesson plans that address these standards while including research based instructional strategies for students with significant cognitive disabilities. Focusing on academic content for this student population was a big paradigm shift for the teachers. Historically, teachers who taught students with significant

cognitive disabilities focused on functional skills (Knight, Browder, Agnello, & Lee, 2010). A fundamental element recognized by these teachers was the need to include the teaching of communication skills and sight word vocabulary. Routinely, students with significant cognitive disabilities are taught communication skills and sight word vocabulary by using pictures paired with words and other visual strategies (Stephenson, Bo, Chavez, Fayle, & Gavel, 2007).

## Nature of the Study

The guiding or research question that helped guide this study is: How effective is the teacher written kinesthetic-based reading program for students in grades 3 through 5 who take the statewide alternate assessment? There was little primary research available regarding this small specific student population—students with significant cognitive disabilities. Much of the work available was by one or two leading researchers. Teachers needed information on specific materials that have been used to boost student achievement in reading for these students. They needed to know if the materials helped, needed modifications, should be continued, or discarded. As a result, this program evaluation provided this information to the applicable teachers.

## Purpose of the Study

The purpose of this study was to evaluate and make recommendations for improving the teacher written, kinesthetic based reading program addressing the state's elementary reading alternate achievement standards.

## Conceptual Framework

Two theoretical frameworks guide this study. The first framework is based on Maria Montessori's work, who wrote:

> Like others I had believed that it was necessary to encourage a child by means of some exterior reward that would latter his baser sentiments, such as gluttony, vanity, or self-love, in order to foster in him a spirit of word and peace. And I was astonished when I learned that a child who is permitted to educate himself really gives up these lower instincts. I then urged the teachers to cease handing out the ordinary prizes and punishments, which were no longer suited to our children, and to confine themselves to directing them gently in their work. (Stephenson, 2009, p. 211)

The second framework is Howard Gardner's work on multiple intelligences. He asserted that each child possesses a preferred learning style (Gardner, 2008). He argued that teachers who identify the favored learning styles of their students are able to tailor the teaching strategies employed in the classroom by differentiating the assigned tasks for their students based on these learning preferences (Gardner, 2008). Montessori and Gardner's works were used to provide support for the fundamental components of this doctoral study.

### Theoretical Framework Theorist – Maria Montessori

Assisting students in making learning gains has long been the fundamental role of educators. This doctoral study is based conceptually on the work of Maria Montessori

and Howard Gardner. These individuals helped establish the key instructional strategies employed in helping students with and without disabilities have a meaningful education experience inside the classroom. Moreover, special education researchers have worked tirelessly to conduct research, which is specific to students with significant cognitive disabilities and those strategies, and protocols that have been proven effective by creating successful experiences for this student population. However, it is important to keep in mind that there are very few leading researchers in this specific field. In addition, the theoretical framework helps provide key insight into providing instruction to students with special needs and those that have sensory preferences in completing classroom assignment.

Maria Montessori's work shaped the educational methods used in special education classrooms. Maria Montessori's early work included being the director of a school for mentally disabled children (Stephenson, 2010). She advocated to individuals of her day the elementary need to respect differences in each other. She stated teachers should emphasize the social interactions among students, peers, and the teacher (The International Montessori Index, 2010). As a teacher of students with disabilities, it is important to know and understand my students' cognitive abilities, behaviors, and their health conditions so that I can provide meaningful instructional activities for each one. Montessori's work exemplified the best instructional strategies to employ to make the biggest difference in the learning for students with disabilities.

Maria Montessori's early research and work with special needs students impacted n today's special education classrooms. Another fundamental principle of the Montessori Method is the basic understanding that the learning process is individualized for each student (The International Montessori Index, 2010). Montessori worked tirelessly to understand the students that she and her school served. Moreover, she sought to understand, respect, and nurture the student's preferred learning style (Stephenson, 2010). She also worked to ensure there was an understanding that all students could learn and be successful if given the right opportunities and support (Stephenson, 2010). By having and demonstrating mutual respect for each other, the student is able to show success in instructional activities. Her efforts built what is now referred to as the Montessori Method where each student works individually on specified tasks at his or her own pace (Stephenson, 2010). Montessori methods help shape the research-based learning strategies that special educators employ in classrooms. In addition to emphasizing individualized learning processes for students, Montessori also stated students should be able to move about the classroom.

In addition, Montessori noted that within the learning environment students should be allowed to move freely from work area to work area. While working in their assigned work area, students did not use textbooks or worksheets (Stephenson, 2010). Instead, the tasks used manipulatives and other items that students could use for exploration and learning. Then, the teacher completes and documents his/her observations of the student working on various activities. Also important was the fact that

students were not given timed deadlines to get their work complete (Stephenson, 2010). Montessori's work helped to establish the principle of differentiating instruction to meet the needs of each individual student in the classroom. While Montessori provided some of the ideas for the conceptual framework of this doctoral study, the later work of Gardner was also important to the conceptual framework of this study.

**Theoretical Framework Theorist – Howard Gardner**

Another educational theorist whose educational philosophy resonated with me is Howard Gardner. Gardner was born in 1943 and is the John H. and Elisabeth A. Hobbs Professor of Cognition and Education at the Harvard Graduate School of Education (Gardner, 2008). Gardner's most prominent contribution to the field of education is his Theory of Multiple Intelligences, often referred to as MI Theory.

Teachers must work to understand the preferred learning styles of the students in their classes. The publishing of this MI theory was a paradigm shift for educators. It was a common practice for earlier educators to believe that all students learn the same way. Originally Gardner (2008) defined seven original intelligences which are: (a) linguistic intelligence which is a sensitivity to the spoken and written word, the inclination to learn other languages, and use them to accomplish a goal; (b) logical-mathematical intelligence is the ability in math and other complex logical processes; (c) spatial intelligence is the ability to perceive the visual world accurately and then think using these pictures; (d) bodily-kinesthetic intelligence is the ability to use the body or to physically manipulate an object to complete a goal; (e) interpersonal intelligence refers to the ability to recognize and understand the moods, desires, and motivations of others; (f) intrapersonal

intelligence is one's unique ability to understand their own emotions; and (g) musical intelligence is the ability to understand, play, and create music (Helding, 2009). Teachers use their understanding that all students have a preferred learning style, one of the multiple intelligences, to tailor specific interventions to help a student expand their knowledge of a concept. Teachers use multiple intelligence theory to enable instruction to be more effective. Also this theory is used to build the students' capacity to learn and retain information so it can be used to complete a task or to solve a simulated real-world problem.

Teachers work to build student capacity in the subject material being taught in their classrooms. Most importantly, teachers want their students to experience learning gains. As a result, teachers seek to recognize the distinct learning preferences of each student in their classroom (Griggs et al., 2009). Moreover, teachers recognized that each child possess all of the intelligences (Kazu, 2009). However, students have a favored style in which they acquire knowledge (Gardner, 2008). By understanding the students and their preferred learning styles, teachers are able to tailor instructional interventions to the specific needs of a student (Thompson, 2011). Teachers are able to create learning experiences that will keep the students engaged in the lesson and should ultimately help the student obtain mastery of the lesson objective. In summary, the MI theory helps teachers teach for understanding by helping students understand a new or complex problem or concept (Gardner, 2008). Through the understanding the preferred learning styles of students, teachers are able to maximize the ultimate potential of the student in completing the required task. In today's classroom, students must be enticed to willingly

participate in classroom tasks by the teacher presented tasks based on the student's preferred learning style. Teachers must deliver lessons that are engaging and help students demonstrate a deep understanding of the lesson content. Howard Gardner's Multiple Intelligence Theory helps teachers create classroom activities that are interesting and engaging to their students and the critical review of the literature continues to formulate the positions made in this doctoral study.

## Operational Definitions

In this section, key vocabulary words used throughout this dissertation are identified and defined. These words include:

*Access points*: In Florida, the alternate learning statements, officially referred to as the *Sunshine State Standards Access Points*, are used for students with the most significant cognitive disabilities where performance using the general education standards is not possible (Florida Department of Education, 2009).

*Alternate assessment*: "This is the generic term for a family of methods used to assess the academic performance of students with significant disabilities or limited proficiency with English" (Elliott & Roach, 2007).

*Augmentative communication systems*:This is the communication system(s) used for a non-verbal student so he/she can express his/her wants, needs, and/or desires (Browder et al., 2009).

*ESE center school*: A school where all the students that attend the school have an Individual Education Plan (IEP) take an alternate assessment, and complete assignments

based on modified learning standards (2009-2010 Florida School Improvement Plan, 2010).

- *Independent cognitive level of performance:* The highest level of complexity of the *Sunshine State Standard Access Points*. This level focuses on skills such as comparing, organizing information such as identifying the main idea of a story or completing a more complex math problem (Florida Department of Education, 2009).
- *Individual education plan (IEP):* This is the document that provides vital background demographic information regarding the student, defines the services an Exceptional Education Student receives, identifies his/her present level of performance, and states his/her current educational needs in the form of goals and objectives to be worked on for the duration of the IEP. The IEP must be reviewed and updated at least once per year (Florida Department of Education, 2009).
- *Multi-sensory environment:* This is a dedicated area where a student's interaction with sensory inputs is controlled. The student is allowed to freely move about this area and is encouraged to interact with sensory equipment that helps meet his/her sensory needs. Thus, the use of this multi-sensory equipment creates a feeling of pleasure or satisfaction (2009-2010 Florida School Improvement Plan, 2010).
- *Participatory cognitive level of performance:* The first level of complexity of the *Sunshine State Standard Access Points*. At this level, students are at the awareness level and are at the stage of recognition of fundamental literacy components such as a letter or a single number (Florida Department of Education, 2009).

- *Prompting :* This is the physical, verbal, or gestural signals are given to a student with cognitive, physical, and/or behavioral disabilities so that he/she can successfully complete a task (Browder et al, 2009).
- *Supported cognitive level of performance:* The second level of complexity of the *Sunshine State Standard Access Points*. At this stage, students are required to identify skills, recall facts, or perform basic academic skills. For example, these skills may include reading one or two words or solving very simplistic math problems (Florida Department of Education, 2009).

## Assumptions, Limitations, Scope, and Delimitations

The assumptions around this study included that study participants provided honest and truthful responses. The major limitation of this study is the small sample size and the fact that this study was conducted at only one ESE Center School. Therefore, generalization of the project outcomes may not be applicable beyond the ESE Center school in which the study took place. The scope and delimitation of this study was that I wanted to evaluate the effectiveness of a teacher written supplemental standards-based reading program for elementary aged students who had significant cognitive, physical, and/or behavior disabilities at a single ESE Center school. It is important to understand the assumptions, limitations, scope and delimitations of a study so readers clearly understand all aspects of the project.

## Significance of the Study

With the focus on teacher and school accountability, it is extremely important for teachers and schools to demonstrate high academic expectations for its students. This

includes students with the most significant disabilities, whether these disabilities are physical, cognitive, or behavioral, students need access and an opportunity to demonstrate proficiency to grade-level standards, even if these standards are modified based on the presence of a significant disability (Browder et al., 2004). It is also important because student performance on a statewide assessment determines the school's ability to make AYP even for an ESE Learning Center. In an effort to maintain high academic rigor and seek to meet AYP, teachers and administrations worked to create and utilize all available resources necessary to build capacity of their teachers and students, even if this means the creation of teacher-made materials. An evaluation of the supplemental reading program provided information about the effectiveness of the program to educators at the participating school.

## Summary

In Section 1 the research problem, purpose, research question, conceptual framework, literature review, and project implications were discussed. In summary, the research problem was based on the need to evaluate a supplemental kinesthetic based reading program for disabled students. The work of Maria Montessori and Howard Gardner were used as the conceptual framework for this project. Maria Montessori's early work laid the foundation for teaching strategies used by today's special educators. In addition, Howard Gardner's work detailed the importance of understanding the learning style preferences of students. The methodology will be discussed in Section 3.

Section 2: Literature Review

## Review of the Literature

In addition, a comprehensive literature review was conducted to gain knowledge and scholarly research support for the use of an alternate assessment for students with the most significant cognitive disabilities, about legislation mandating the use of such an assessment for this unique student population, and including the roles of the stakeholders involved in this process: the students, the teachers, the parents, and the principal.

Furthermore, this literature review consisted of gathering associated research related to educating students with significant cognitive disabilities, reading instruction for students with significant cognitive disabilities, and stakeholder perceptions of students participating in an alternate assessment. An Internet search was conducted using the following electronic databases from Academic Search Premier, ERIC, Education Research Complete, SAGE, and ProQuest Central. The search terms used consisted of the following words and phrases: *alternate assessment, student participation in alternate assessments, alternate assessment procedures, students with significant cognitive disabilities, educating students with disabilities, teachers perspectives on students participating in alternate assessment, parents perspectives on students participating in alternate assessment, principal perspectives on students participating in alternate assessment, reading instruction for students with significant cognitive disabilities, No Child Left Behind and children with significant cognitive disabilities, IDEA requirements for students with significant cognitive disabilities, instruction models for teaching students with significant disabilities, teacher accountability for special education*

*teachers, Maria Montessori, Howard Gardner, kinesthetic based curriculum, teaching students with cognitive disabilities, professional learning communities, collaborate planning, and intellectual disabled students.*

## Critical Review of the Literature

**Alternate assessment purpose**. An alternate assessment has two main purposes. First, it provides an assessment of student performance related to the alternate achievement standards (Elliott & Roach, 2007). Second, the results are used to guide the development of instructional materials, use of instructional strategies, and future goals for learning (Elliott & Roach, 2007). It is extremely important that the alternate assessments used are: (a) aligned with content standards, (b) provide reliable scores, (c) valid and reliable, and (d) consistent with NCLB legislation regarding a school making AYP (Elliott & Roach, 2007). Well-planned and administered alternate assessments must contain documented procedures for student participation, clearly defined scoring methods, and an easy to read and understand scoring report format (Elliott & Roach, 2007). Teachers use these test results to determine how their students are acquiring and retaining this knowledge. Teachers should always know that this assessment is a key part of their overall teacher performance evaluation that is completed each year. In some states, the results of this alternate assessment are used to determine the teacher's effectiveness inside the classroom. While there are several purposes for using alternate assessments, the question of accountability needs to be addressed.

**Research on alternate assessments.** Schools are accountable for the learning that takes place while a student is at school. The No Child Left Behind Legislation, which

was passed by Congress in 2001, requires states and school districts to develop and implement school accountability systems. It is important to understand that these required accountability systems must be used for all students, including those with the most significant disabilities (Kearns et al., 2009). In many states and school districts, the accountability system contains provisions on how its content is used to help determine the effectiveness of a teacher. Testing and the reporting of test results impact the teacher's effectiveness ratings and the overall perception of the school. Teaching of students with significant disabilities continues to evolve as more research becomes available to educators. It is important that students with significant disabilities are assessed and have access to the content of the general education curriculum.

Students with significant disabilities have not had access to the general education curriculum. Historically, students with the most significant disability were provided instruction in functional areas such as personal care, daily living, independent functioning, and social skills (Browder et al., 2004). With the NCLB legislation, states were required to provide students with these significant disabilities access to the general education curricula (Browder et al., 2004). As a result, state's developed alternate achievement standards (Browder et al., 2004). It was these alternate achievement standards that laid the foundation of the content of the alternate assessment. However, each state has the opportunity to develop and implement an accountability system for this student population (Kohl et al., 2006). A state's ability to create systems has created a vast discrepancy in accountability systems (Musson et al., 2010). There is no consistency from between states in the content of the alternate assessment or in the assessment

process (Flowers et al., 2006). Now, the performance of a student on this assessment is being used to tie teacher performance to their pay (Perner, 2007). Alternate assessment scores play a major role in the documented performance of the classroom teacher and the school. The use of an alternate assessment with students who have significant disabilities has limited research to validate how it is used with this unique student population.

Research about relevant alternate assessment was limited. Limited research existed to understand what a relevant alternate assessment contains, how it is implemented, and how it is used to determine student achievement (Perner, 2007). Clearly, students must be provided access to the general education curriculum at their current grade level (Perner, 2007). Access to the general education curriculum is achieved through the understanding and implementation of the alternate achievement standards for this unique student population. Ultimately, these standards drive the instructional processes inside the classroom and the assessment procedures used to measure student achievement (Perner, 2007). Teachers use alternate achievement standards as the basis of the lesson plans created for the subjects that they teach. The lessons prepared to teach these alternate achievement standards must be engaging and relevant to this student population.

Teachers, even special education teachers, must present lessons that meet the instructional needs of their students. Administrators, teachers, and parents must come together in an effort to ensure relevant educational lessons are delivered to their students (Perner, 2007). For example, functional skills should be incorporated into the alternate achievement standards (Perner, 2007). These individuals should come together, offer, and

provide feedback into an accountability system that promotes high academic standards but must be relevant. The work products that are derived from the presented lessons demonstrate a clear understanding of the student's academic achievement during a particular time period (Perner, 2007). Teachers must be provided the instructional resources necessary to deliver instruction based on these alternate achievement standards (Perner, 2007). Then, when these materials or resources are not routinely available, they used research-based means of meeting classroom instructional delivery expectations (Perner, 2007). The instruction of students with significant disabilities is a partnership between parents, teachers, and school administration. Even though little research exists on the influences of student performance on alternate achievement assessments, a case study does exists and is summarized in the next paragraph.

In a case study conducted to determine the influences of student performance on alternate assessments, seven students and teachers, who worked in two different school districts, provided that there are many factors influencing student performance.

These factors include:

- Available resources;
- Curriculum;
- Instructional effectiveness;
- Teacher and student characteristics;
- Data collection;
- Features of the state's alternate assessment; and

- Accountability system (Karvonen et al., 2006).

Researchers in this study suggested that there should be more than one method used to determine a student's effectiveness. In this study, other assessment methods were also discussed including the use of a student portfolio. A student portfolio is a means by which the teacher can demonstrate student learning through its content (Karvonen et al., 2006). The portfolio's content showed student performance throughout the school year by including student work samples; whereas, the test results from an alternate assessment shows a student's performance at an individual moment in time. Therefore, multiple methods of evaluating student achievement should be used in efforts to determine the student, teacher, and school success. In addition, the primary stakeholders in this process need to be recognized and exercised to create an effective instructional program for the student. These stakeholders (parents, teachers, and administrators) are an important part of the educational process of students.

**Stakeholder perspectives.** At the school level, there are three principle stakeholders. These stakeholders include the principal, teacher, and parents or guardians of students. Understandably, educators recognize this as a unique student population, but they also grasp that the teachers of these students must be held accountable for ensuring learning gains occur for their students (Towles-Reeves et al., 2008). Parents want their child to experience success and make learning gains, even if at a few slow pace. These stakeholders view their relationship as a partnership in educating a child. Undoubtedly, these groups agree a process must exist in determining the effectiveness of the education a student receives. However, educators and reformers alike realize that additional

research is needed to understand the role of an alternate assessment and the various roles of each of the primary stakeholders (Towles-Reeves et al., 2008). All stakeholders must work together as partners to create meaningful learning gains for the student.

**Principal.** The principal is a key stakeholder in providing the resources necessary in delivering an instructional program that promotes academic achievement (Towles-Reeves et al., 2008). Towles-Reeves et al. (2008) examined two tentative research questions related to how a principal perceives the alternate assessment based on alternative achievement standards. Two states participated in data collection. The two fact-finding questions were:

1. What were principals' overall perceptions of the influence of alternate assessments based on alternative achievement standards?
2. Were there any key differences in the way the principals in the two states felt about the alternate assessment and the alternate achievement standards?

This study showed that the majority of the principals perceived the alternate assessment and the fact that it is based on alternative achievement standards positively (Towles-Reeves et al, 2008). However, change occurs routinely in the field of education through the various legislation passed by a state or the federal government (Towles-Reeves et al, 2008). In an effort to meet the demands of the student accountability measures, principals must be the school leader that embraces these mandates and embraces the diverse student population they serve (Towles-Reeves et al, 2008).

**Teachers.** Teachers found that assessment plays an important role in the educational process of students. However, teachers think that there should be special

accountability consideration given to teachers of this unique student population. In a study focusing on determining teacher perceptions of alternate assessments, the teachers agreed that these students should be included in school accountability systems, however, they did not agree with the documented educational benefits of alternate assessments (Flowers et al., 2005). Teachers feel that these accountability mandates increases their required paperwork and reduces the time they have to work on other instructional efforts (Flowers et al., 2005). In addition, teachers believed there was a benefit to using an assessment or assessments to measure student achievement and trusted there were more appropriate or efficient approaches that should be considered (Flowers et al., 2005). These approaches included the use of a portfolio, performance-based test, or a checklist (Flowers et al., 2005). Therefore, a balance must be acknowledged between the value of the alternate assessment and other applicable methods of demonstrating and documenting student performance. Teachers play an important role in the education of a child.

Educators are a key player in the overall achievement and learning opportunities that a student experiences while at school. Teachers are the most important component in a student's educational experience (Flowers et al., 2005). . As a result and as research continues in this area, teachers of this student population must be a part in the determination of what is used to assess whether or not a student with significant cognitive disability has or had made learning gains during a school year (Flowers et al., 2005). Teachers need to provide authentic educational experiences to these special students. Often, these standards provide the flexibility of incorporating the functional skills needed for these students to learn as well. Thus, the students will have been able to access the

general education standards. At the same time, the teachers are able to infuse the functional skills that parents feel these students need to learn during their educational experience.

**Parents.** Parents should have a voice in how alternate assessment results are used. There is very little research in how parents feel a state's alternate assessment results are used. However, in a research study conducted by Andrew Roach, Georgia State University (2006), he investigated the influence of parents' perceptions on the Wisconsin Alternate Assessment (WAA). In his study, the participants were parents and teachers of students with the most complex disabilities (Roach, 2006). There were a total of 77 participants from throughout Wisconsin participated in his study. Teachers were required to submit the following information:

1. Wisconsin Alternate Assessment test results.
2. Copy of the student's current IEP.
3. Completed parent surveys regarding their perception of the WAA.
4. Questionnaire that explained how the student was provided instruction in the areas covered by the WAA (Roach, 2006).

Roach used a variety of data sources to explore the learning gains made by a student with severe disabilities. The study supports the idea that a variety of data sources are needed to effectively assess the learning gains made by a special student population. To validate this hypothesis, the researcher uses a variety of methods to analyze the data that was gathered during the project.

After data in this study were collected, a multiple regression analysis was conducted to determine the possible relationship between various variables. The variables were predictor variables and parent perceptions that were collected on the parent survey (Roach, 2006). The parents voiced an interesting perspective. The results of the survey indicated that parents felt the alternate assessment results should be used to drive the individualized instructional efforts of the student through the creation and implementation of the students IEP. By focusing instructional efforts on these goals, students should be provided an improved access to the general education curriculum (Roach, 2006). Analysis of the data showed that parents wanted IEPs to be evidence based. The writing and development of a student's IEP is one of the most important tasks that a teacher undertakes each year. This IEP outlines the educational program and required services to address the unique learning needs of students with disabilities. It is important that teachers receive on-going training on how to develop well written IEPs as well as being updated on any legislative changes that impact the development and content of an IEP. Teachers are life-long learners and dedicate themselves to on-going professional development activities that take place on and off the school campus.

**Professional learning communities.** Teachers are finding that Professional Learning Communities are a beneficial means by which they grow their individual teaching pedagogy. Professional learning communities are becoming a key mechanism by which schools help teachers with gaining capacity in teaching their students. Research suggested that the existence of a professional learning community in a school helps promote student achievement (Leclerc, Moreau, Dumouchel, & Sallafranque-St-Louis,

2012). A professional learning community is a method of delivering professional development for teachers whose purpose is to equip teachers with new skills and instructional strategies that are used in classroom practice. Within the professional learning communities, teachers are able to collectively participate in professional development activities with other teachers who share similar interest and knowledge. Most often, teachers who teach the same grade level or subject are grouped into professional learning communities (McLeskey, 2011). A professional learning community is directed by its teacher members and receives its direction from school-based administration (Carmichael & Martens, 2012). By focusing on improved teacher practice the anticipated results of the group's efforts are improved student outcomes. In addition, the delivery of professional development through professional learning communities helps to ensure that new skills and strategies learned by teachers are actually used inside the classroom (McLeskey, 2011). Professional learning communities give a teacher the opportunity to collaborate with their grade-level colleagues to discuss learning strategies that work and do not work and receive feedback from others on how to meet the instructional needs of their students. In addition, professional learning communities deliver a wide variety of benefits to the students, teachers, and administrators. During these meetings teachers receive ideas and strategies that they can immediately take back to their classrooms and use. By being able to brainstorm with other colleagues, teachers are able to employ successful strategies used by others education professionals and improve the learning that takes place inside the classroom.

Professional Learning Communities are an effective and beneficial means by which teachers work to improve the academic achievement of their students.

A variety of research exists related to the development and perceived benefit of an effective professional learning community. Furthermore, according to Leclerc, Moreau, Dumouchel, and Sallafranque-St-Louis (2012), there are seven developmental stages and progression indicators of effective professional learning communities. These stages and indicators are:

1. The school's vision.
2. The physical and human conditions that encourage teachers to cooperate, learn, and share together.
3. The cooperative culture of the school.
4. The manifestation of leadership from both teachers and principals.
5. The dissemination of expertise and shared learning.
6. The topics addressed based on concerns related to student learning.

It is important that decision making is based on accurate data. The development of an effective learning community is an on-going work in progress (Carmichael & Martens, 2012). There are several benefits of cultivating effective professional learning communities in a school. These benefits include: use of a common language, renewed energy, authentic intellectual work fluency, and trust between members, increased student engagement, improved student test scores, and system-wide change (Carmichael & Martens, 2012). Professional learning communities is a research-based strategy that can benefit all student populations, including those students with severe disabilities. Also

professional learning communities deliver the needed professional development for teachers in a specific context. It is important for schools to work with teachers to continuously development the effectiveness of the information delivered through the Professional Learning Community. Ultimately, the school's professional learning community facilitator needs to create an atmosphere that is flexible and is able to meet the professional development needs of the involved teachers while always working toward improving the academic achievement of the students at the school.

Professional learning communities' organization and structure differ from school to school. Learning communities must be flexible enough to adapt to specific needs of the local school (Ermeling & Gallimore, 2013). However, one key component in building a professional learning community is relational trust between its members (Cranston, 2011). Members must have trust between each other so that they feel comfortable in sharing ideas or feeling their colleagues are not being judgmental (Cranston, 2011). It is important for the school's principal to discuss professional learning community goals, latitude of decision making ability, and setting the ground rules by which the professional learning community will operate (Cranston, 2011). Principals must communicate that the professional learning community is a safe, nonthreatening environment where teachers can talk freely about their classroom activities and outcomes (Blanton & Perez, 2011). Members must feel like they are working as a team and that any output is delivered based on team consensus and the individual's input will not be negatively attacked (Cranston, 2011). Professional learning communities need to meet the needs of the state's learning standards, specifically as related to student achievement. While participating in these

meetings teachers must always remember that their crucial role is to increase the academic achievement of the students inside their classroom.

Professional learning communities also are a means for focusing on improving student achievement. Professional learning communities should be viewed as a medium where members can work on complex instructional issues with a goal to improve student achievement (Nehring & O'Brien, 2012). Teachers ensure that relevant student data is analyzed and any decisions regarding classroom instructional strategy employment is based on this data (Nehring & O'Brien, 2012). While participating in these professional development activities, teachers must commit themselves to meet regularly and devote themselves to researching and using only research-based strategies that are agreed on by the group in delivering classroom instruction (Moirao et al., 2012). Group discussions must include the review and analysis of student work samples. Teachers use reflection to assess the strategy employed and how it impacted the student's work (Moirao et al., 2012). This reflection includes the teachers sharing thoughts on what went well, what did not go so well, and what strategies need to be changed for future lessons. As a result of the effective use of this professional learning community model, teachers feel empowered to promote enhanced student learning in their classrooms and throughout the school (Song, 2012). Professional learning communities provide teachers with an opportunity to enrich their teaching pedagogy in order to improve student achievement. Specifically teachers can use the time dedicated to meeting together as a professional learning community to work together to plan future lessons for their students. Professional learning communities provide the vehicle by which teachers can plan lessons in a

collaborative environment with their grade level colleagues which should benefit the overall achievement of their students.

Often, teachers participating in a professional learning community work collaboratively with their grade of subject area colleagues to develop lesson plans that are used in the classroom. Collaborative planning models offer an effective method for increasing student achievement (Grierson et al., 2012). The learning outcomes, lesson content, and activities of an upcoming lesson are discussed and agreed upon by the group. Once the lesson plans have been written and agreed upon, the group discusses when the lesson will be taught, what work samples or data will be collected, and when the team will meet again to discuss the outcomes of the lesson (Grierson et al., 2012). When the teachers come together to reflect on the lesson, the group discusses what went well, did not go so well, and what changes should be made to increase student achievement or engagement. The teachers review and analyze the student work samples. The teachers make an informed decision based on the data collected and analyzed for the lesson. They decide if there are refinements to the instructional strategies used that might need to be incorporated in the planning of future lessons. The participating teachers realize this is an on-going process (Grierson et al., 2012). The review and analysis of data as a basis for planning lessons are on-going processes for teachers, and these processes help them determine what is or is not an effective teaching strategy in the classroom. In addition to using professional learning communities to prepare evidence-based lesson plans, teachers are able to seek assistance from other teachers in which teach the same grade level of students. Professional learning communities seek to increase student achievement while

providing teachers with a research-based practice to improve their pedagogy and strategies that they use in the classroom.

Professional learning communities are becoming a practice used by many teachers in an effort to maximize student accomplishments. Across the board, school accountability reports reflect that there are diverse student populations who experience achievement gaps (Blanton & Perez, 2011). However, research is emerging regarding the relationship between special education teachers participating in professional learning communities and the achievement of special education students (Blanton & Perez, 2011). It can be difficult to special education teachers to clearly demonstrate the learning gains that take place in their students throughout the school year. Often, these teachers not only rely on the state assessment, but use work samples, district specific assessments, and antidotal notes to reflect the progress made in their students over the school year. Special education teachers still must be held accountable for the learning gains that take place among their students. While enhancing their skill set in the professional learning community, teachers can assist their general education colleagues by providing input on how to help students who are having difficulty in their classroom with a particular concept or problem.

When special education teachers are part of a professional learning community, these teachers are able to also provide input and assistance to their general education colleagues regarding student learning strategies who struggle in obtaining the needed material or concept. The special education teacher is made to feel a part of a larger community of teacher practitioners throughout the school campus (Blanton & Perez,

2011). Special education teachers do not need to feel isolated and not part of their faculty members. Teachers should include other specialized teachers in discussion when they have a student with a specific disability (e.g., speech, vision) in their classroom (Lindsay, 2011). This specific collaboration suggests improvement student achievement (Lindsay, 2011). Teachers providing services to a special education student would benefit from collaborating, through the use of a professional learning community, by creating a focused plan for providing services to that relates directly to what the teacher is trying to achieve in the classroom. All teachers that provide instruction to a student are part of the student's educational team and must have a cohesive plan for maximizing the achievement of that particular student. Teachers and special education service providers constitute a team dedicated to delivery premier educational services to the student to help the student be successful by employing a variety of procedures and processes.

Another approach that could potentially be used by a professional learning community is by using the Response to Intervention (RTI) procedures. Using a RTI approach, the team uses as systematic school-wide approach that uses a problem solving approach to meet the individualized educational needs of each student in a classroom. RTI requires collaboration of all applicable parties associated with educating a specific student (Kamei-Hannan et al., 2012). Data from on-going assessments are collected and analyzed by the team. The results from the data analysis were used to plan student-specific instruction using research-based interventions (Kamei-Hannan et al., 2012). RTI is also used to identify students who are at risk of failing or students that might need additional testing to determining if a disability exists (Kamei-Hannan et al., 2012). These

decisions are made in consultation with all applicable individuals who have specialized training working with students with specialized disabilities (Kamei-Hannan et al., 2012). One of the fundamental elements of the RTI processes is to use of multiple data sources, help to ensure students receive the supports needed to be successful and make learning gains. This variety of data can be analyzed using varying methods while teachers work in their professional learning community. However, the teachers working in a professional learning community must recognize that they must utilize specialized processes, such as RIT, to maintain this effective learning environment.

Sustaining an effective professional learning community can sometimes be a daunting task. Teacher participants must feel like they are active members of their learning community and are making an important contribution to the school's improvement efforts (Richmond & Manokore, 2011). The professional learning community must be led by an experienced facilitator that is not in an administrative or supervisory role over the teacher participants (Richmond & Manokore, 2011). Moreover, the principal must actively encourage the teacher participants and ensure that the community is safe and threatening (Easton, 2012). The development and implementation of an effective professional learning community member is a process that takes time to be fully developed. Evaluating the effectiveness of the community can help to sustain the work of the members of the professional learning community.

A school must be able to evaluate the effectiveness of the professional learning community meetings. A resource to help sustain an effective professional learning community is the implementation of a Grade-Level Instructional Team Checklist that

would help ensure that the meetings were effective (Taylor et al, 2013). This checklist and on-going evaluation of the results helps create effective, collaborative teams across the school (Taylor et al., 2013). As with all strategies employed by a teacher, the administration and faculty must be able to ascertain whether they were successful. This data will help make the changes necessary to the professional learning community's organization. It is important for administrators to evaluate the effectiveness of the various professional learning communities that are active at their school. While these professional learning communities help build capacity among teachers, provide a mechanism by which professional development topics can be delivered, and help ensure consistency in the key learning strategies that are used in all classrooms.

Teachers throughout the school should have knowledge of the key instructional focus for each school year. Furthermore, each teacher at each grade level must use these strategies consistently in their individual classrooms (Conway & Abawi, 2013). Therefore, professional learning communities are viewed as a vehicle to improve student achievement (Taylor et al., 2013). Teachers and administrators are partners in making changes to instructional practice that leads to increased student achievement. There are multiple implications to the work teachers do while working in a professional learning environment. Professional learning communities are used by schools throughout the school district to increase the academic achievement of all the students at the school.

# Section 3: Research Method

## Introduction

In Section 3 I will outline the research design and approach that was used for this research study and provide specific details related to how data were gathered, analyzed, and reported to various stakeholders. I conducted a formative program evaluation of the elementary grade level teacher written reading lesson plans that correlate to the state alternate reading achievement standards. The expected outcome of this evaluation is to determine if the program and use of these lesson plans met its expectations and what changes need to be made in order to improve these lesson plans.

## Design

The design and the research approach are important characteristics of a doctoral research study. This research project was a formative program evaluation. According to Patton (2015) a formative evaluation is done to improve a specific program. In this evaluation I relied on a qualitative intrinsic case study research design (Stake, 2005). It was my desire to identify improvements to the curriculum materials being used by elementary grade level teachers teaching students with significant disabilities. These materials were standards-based and focused on the state's alternate achievement standards in reading.

Teachers identified that the use of a supplemental lesson plan could help them meet the educational needs of their students. For three years, the elementary students at the participating school had been using the supplemental reading lesson plans, and this program continued. Teachers wanted these supplemental lesson plans to provide reading

instruction addressing the state's alternate achievement standards. These elementary teachers wanted to expose their students to children's literature that general education students were being exposed to by providing them modified instructional components. The teachers quickly saw that their students were engaged with the lessons and enjoyed participating in the hands-on activities that were included with each lesson. It was important to outline the project components so that the appropriate study approach could be determined. As these project components continued to be reviewed, it was determined that a case study design was appropriate.

In addition, it is important to understand the basics of the approach behind this doctoral study. This study was a mixed methods study that included quantitative and qualitative components. The objective of quantitative research is to develop and employ mathematical models, theories, and/or hypotheses to explain a particular phenomenon (University of Southern California, 2014). In a qualitative study, researchers aim to gather an in-depth understanding of human behavior and the reasons that govern this behavior (Patton, 2002); whereas a quantitative study utilizes systematic, empirical investigation of social phenomena via statistical, mathematical, or numerical data or computational techniques. In addition, I used a case study, the most appropriate approach for this doctoral study, because it looks at an individual or small participant pool, drawing conclusions only about that participant or group and only in that specific context. In a case study, emphasis is placed on exploration and description of the data collected (Patton, 2002). It was important for me to analyze the components of each of the various research study designs and determine what was the most appropriate given my problem,

data collection protocols, and analysis tools that were used. The chosen design drove the methodology used to present the information, data analysis, and recommendations. I worked through understanding multiple designs to arrive at the selected design.

There are several methods of research that were not selected as the method of conducting research for this study. These methods were phenomenology, grounded theory, and ethnography. First, a phenomenological method was not chosen because it would have required me to provide my own perspective on experiences and perceptions about the essence of the phenomenon of interest. I was not the teacher of students in this study so I lacked the knowledge and direct experience to conduct a phenomenological study (Patton, 2002). Second, a grounded theory approach was not chosen based on the fact that using grounded theory methods would require me to develop a theory based on systematic analysis of data (Patton, 2002). Third, in an ethnographic study, I would have had to explore and observe cultural phenomena from the point of view of the participants in this study (Patton, 2002). I gave careful consideration to each design, its research methods and then reviewed the problem statement for my study and worked to determine which design type was the best choice. In addition, I sought the assistance of my doctoral study chair to help me in my analysis and to clarify any misunderstandings that I might have regarding the various design methods. As a result of careful analysis of various research approaches and input from my chair, the case study approach was the most appropriate method for my doctoral study.

## Research Question

The guiding or research question that helped guide this study is: How effective is the teacher-written kinesthetic-based reading program for students in grades three through five who take the statewide alternate assessment? There was little primary research available regarding this small specific student population – students with significant cognitive disabilities. Much of the work available was by one or two leading researchers. Teachers needed information on specific materials that have been used to boost student achievement in reading for these students. They needed to know if these materials helped, needed modifications, should be continued, or discarded. As a result, this program evaluation provided this information to the applicable teachers.

## Context

It was important to provide background information within a doctoral study to help the reader and other researchers better understand what the project is all about. The setting of this study was an ESE Center school located in a rural school district in the state of Florida. Data were gathered for this study from a purposeful sample of seven students in grades 3 through 5 who had taken the alternate assessment during the last four school years (2010 – 2013) (Creswell, 2012). Students participating in this study had an Individual Education Plan (IEP), met the state and federal criteria for attending a separate day school, took an alternate assessment, and had a significant cognitive, physical, and/or behavioral disability. The participants in this study were also purposefully selected teachers who were observed and surveyed (Patton, 2002). There were five teachers invited to participate in this research project, however, only three teachers returned the

consent forms to participate. Also, six parents and the school's principal were participants. I knew it was important to provide specific information about the participants of the study as well as any other helpful facts regarding the location this study took place. While providing details about the study were important, it was also important to acknowledge that the participants of this study would be protected using methods outlined by Walden University.

**Protection of Participants**

Participants of research studies must be protected and treated with the upmost respect and dignity. First, the protection of human subjects is an extremely important consideration for researchers (Richard W. Riley College of Education and Leadership, 2011). I completed the human-subjects research training within the last five years before the research study began. The IRB process for Walden University was followed, and approval was received before data collection began (Approval No. 10-10-13-0159659). Next, I hired a statistician to assist in analyzing the project data. I reviewed the importance of confidentiality with the statistician. Moreover, the statistician read and signed a confidentiality agreement. I was responsible to distribute and ensure each participant's parent or guardian completed the Parent Consent Form For Research.
In order to gain access to the Alternate Assessment data for the elementary students, I followed the school district's procedures and obtained permission from the school-based administrator, district personnel, and the district's IRB staff member. The Request to Conduct Research Form was used to seek approval for this research study. Obtaining permission of participants and the overall project is a fundamental step in conducting a

doctoral study. It was very important that I followed these strict protocols precisely and accurately in order to obtain approval of my doctoral study.

## Role of the Researcher

It is important to understand current and previous roles of the researcher when conducting a research study. At the time the supplemental reading plans were developed, I served as the Professional Learning Community (PLC) meeting facilitator. I had received advanced training from my graduate coursework and school district level training which enabled me to facilitate the teacher's PLC in which these lesson plans were developed. It was the teacher's responsibility to determine the lesson standard, lesson content, lesson hands-on activities, and applicable assessment. Then, as the data for this project were collected, I returned to the classroom as a classroom teacher serving adult transition students. At no time, did I have supervisory responsibilities over the elementary teacher group. In addition, I had served as two of the elementary teachers' mentor during their first year at our school. This school is relatively small and teacher interaction is frequent and I worked with these teachers on a daily basis either by in-person communication or by electronic methods. As the researcher, I am biased because I had been part of the development of these lesson plans. The role of the researcher is important to understand when reading and understanding a research study.

## Data Collection

Data were collected for this study in the following ways: (a) assessment scores, (b) surveys, and (c) classroom observations. These three methods of data collection will each be discussed individually in some detail throughout this section.

**Assessment Scores**

I worked with the school district's Assessment and Accountability office by completing their required formal Internal Review Board's (IRB) process to obtain permission to use the individual student's alternate assessment data for the 2010, 2011, 2012, and 2013 school years. Initially, on August 27, 2013, I received approval to conduct my research in the school district with the specified target population. The letter had stated that I had approval up to December 31, 2013, to collect the requested data. However, based on the progress of my IRB application at Walden, the availability of this specific data at the district office (they were unable to find the data being requested), and upcoming winter holidays, I called the Assessment and Accountability Office where I reviewed my situation with the district research contact. At that time, I was verbally given an extension until January 31, 2014, to complete my research efforts and obtain the requested data from the principal of the participating school. The Florida Alternate Assessment data was not available at the district office, and I was directed to set up a meeting with the school principal and review the data needs and seek her assistance in obtaining this data. I made an appointment to meet with the principal on Friday, January 24, 2014, to further discuss the status of the project and to obtain the individual alternate assessment scores for the participating students. The principal provided the requested alternate assessment scores at this meeting. These reports represented the following: (a) Year 1: The base year when the supplementary reading lesson plans were not used, (b) Year 2: The first year the reading lesson plans were used, (c) Year 3: The second year the

reading lesson plans were used, and (d) Year 4: The third year the reading lesson plans were used.

The FAA was a vital component of this study. This alternate assessment data provided the results of how the student participants scored on the test before and after the intervention, the supplemental teacher-written lesson plans, were implemented. These data included the student scores during the year before the intervention and the subsequent three years. These assessment data are what are used to identify if student learning gains took place. Ultimately, this data, and the data of other students in grades 3 to 11 were used to determine the overall effectiveness of the school as reported by the State Department of Education.

**Surveys**

Surveys were distributed to teachers, parents, and the school principal. The results of analysis for each survey group are described in detail below.

**Teacher Surveys.** The teacher survey was distributed to teachers to determine their perceptions of the supplemental elementary reading lesson plans that were created for students in Grades 3–5 (Appendix B). The teacher surveys were placed in participant mailboxes in the administrative office of the school on Monday, January 13, 2014. Each teacher participant was asked to return the survey no later than Friday, January 24, 2014. On Friday, January 17, 2014, I called each consenting participant that had not completed a survey, asked if there were any obstacles to meeting the established deadline, and sent additional copies of the survey to participants if such was requested during the telephone

call. Each participant met the established deadline. In all, there were three teacher participants who consented to participate and who returned the teacher survey.

**Parent surveys.** The parent surveys (Appendix C) were distributed via the daily communication books for each student on Monday, January 13, 2014, and parents were asked to return the completed surveys with their child, to be given to the child's teacher. Each teacher of potential student participants was emailed and asked to place these surveys in my mailbox in the administrative office. This survey was used to gather the parent perceptions of the use of the supplemental reading lessons with their son/daughter. On Friday, January 17, 2014, I called each consenting participant that had not completed a survey, asked if there were any obstacles to meeting the established deadline, and sent additional copies of the survey to participants as was requested during the telephone call. Six of the seven parents returned their parent survey. There was one consenting parent who did not return the survey even after the telephone follow-up.

**Principal survey.** The principal survey (Appendix D) was placed in the principal's mailbox in the administrative office of the school on Monday, January 13, 2014. The principal survey was distributed to collect the principal's perceptions on the use and overall effect the supplemental teacher-written lesson plans had on the reading assessment scores of elementary students. During the meeting with the principal on Friday, January 24, 2014, to obtain the alternate assessment scores, the principal provided me with her completed principal survey. She told me to let her know if there was any additional information needed related to my doctoral project.

**Classroom Observations**

During the week of February 25–28, 2014, I completed a classroom observation during the scheduled reading time of each classroom. I emailed each consenting participant teacher and asked what day I could conduct a classroom observation during the scheduled reading lessons. Once I obtained the response from each teacher, I emailed him or her to confirm when I was coming to his or her classroom to conduct the observation. I was provided a copy of the lesson plans for the entire week. The teachers were asked to teach the same lesson during my scheduled observation. There were three teachers who were scheduled for a classroom observation. Classroom A's observation was conducted on February 25, 2014. Classroom B's observation was conducted on February 26, 2014. Classroom C's observation was conducted on February 27, 2014. During each observation I took specific notes related to the lesson's topic, objectives, strategies employed, and the related hands-on activity that was completed. The Classroom Observation Protocol is provided in Appendix D.

Data Analysis is one of the most important components of a doctoral study. In the Data Analysis section, the assessment scores, surveys, and classroom observations will be discussed in detail to provide clarity about how the data that were collected were analyzed through the course of this study. This section seeks to provide the reader with an understanding of the various data sources and methods used throughout the analysis phase of the project.

### Assessment Scores

Once the assessment scores were obtained, I identified the student information by using the letters “A,” “B,” “C,” “D,” “E,” “F,” and “G” rather than student names. The student data obtained were the students’ raw scores and the students’ proficiency ratings for the subject area of reading. Once the data were identified, the original student data were placed in the school’s safe. The data were forwarded to the statistician for analysis on Friday, February 7, 2014. The statistician used descriptive statistics to analyze these data (Creswell, 2012). Descriptive statistics help describe numerical data which helps identify responses to each question, to identify general trends, and express the distribution of the data (Creswell, 2012).

## Data Analysis

### Assessment Scores

The raw reading data for each student that were provided to the statistician are summarized below:

Table 1

*Assessment Scores of Student Participants*

| Student | 2010 Raw Score | 2010 Prof Rating | 2011 Raw Score | 2011 Prof Rating | 2012 Raw Score | 2012 Prof Rating | 2013 Raw Score | 2013 Prof Rating |
|---|---|---|---|---|---|---|---|---|
| A | 26 | 2 | 18 | 1 | 36 | 2 | 53 | 3 |
| B | 62 | 3 | 110 | 8 | 110 | 7 | 71 | 4 |
| C | 17 | 1 | 14 | 1 | 28 | 1 | 30 | 2 |
| D | 31 | 2 | 36 | 2 | 38 | 2 | 42 | 2 |
| E | 55 | 3 | 68 | 4 | 79 | 5 | 74 | 4 |
| F | 45 | 3 | 16 | 1 | 29 | 2 | 25 | 1 |
| G | 80 | 5 | 77 | 5 | 41 | 2 | 58 | 3 |

The chart below illustrates the analyzed data that were returned to me on Saturday, February 22, 2014, by the statistician.

Table 2

*Measures of Central Tendency by School Year*

| Measure of Central Tendency | 2010 (Base Year) | 2011 | 2012 | 2013 |
|---|---|---|---|---|
| Mean | 2.714 | 3.143 | 3.00 | 2.714 |
| Mode | 3 | 1 | 2 | 3 |
| Standard Deviation | 1.250 | 2.670 | 2.160 | 1.110 |
| Range | 4 | 7 | 6 | 3 |

Note: Number of student participants ($n$) = 7

The statistician was asked to provide the measures of central tendency for each assessment year and the standard deviation (using the proficiency rating of each student). In addition, the statistician was asked to analyze the data to determine if there were any trends or descriptive statistics that could be used to further understand the assessment scores of these students.

As previously noted in this study, there was an extremely small sample size. A sample size of seven was too small to allow any statistically significant conclusions to be drawn. However, the data were analyzed in a way that allowed me to visually interpret

the data. The most striking conclusion was that the statistics from 2013 were almost identical to the statistics in the base year of 2010. The mean and median of those two years were identical. However, the individual student data did not stay the same. Four of the seven students improved, one stayed the same, and two decreased in their proficiency, each showing a decline of two years in proficiency rating. An examination of student B and the associated scores showed a striking increase in proficiency followed by a sudden decrease. These seemed unusual for a learned skill unless some additional factors were impacting the test results. It is important to keep in mind that there were factors that impacted the test results, and these students had cognitive, behavioral, and or physical disabilities that affected their performance on a test and on daily tasks they were asked to perform.

**Surveys**

Surveys were an important data collection instruction for this doctoral study. It is important to recognize that there are quantitative and qualitative components within this student. The survey instrument contained a survey that asked the participants to rank their responses using a Likert Scale. The data yielded from this part of the survey was analyzed using descriptive statistics. In addition, the survey instruments provided an opportunity for the participant to respond to a given question. The responses from these questions were analyzed using qualitative protocols. In analyzing the qualitative survey data, I constructed a coding system based on the survey information (Patton, 2002). Initially, I coded for the following emerging themes of this study. These emerging themes were positive effects of lessons, opportunities for refining the collaborative process of

lesson plan development, negative effects of collaboration to create lesson plans, and overall comments regarding student achievement. According to Glesne (2011), the coding structure is an opportunity for me to show relationships in the data collected. I identified each code with a number. These codes were used through the initial phases of data analysis.

**Teacher survey.** The teacher survey asked the teacher participant to responded to several questions using a one to five scale (where one was a strongly disagree rating, three was an agree rating, and five was a rating of strongly agree) and respond to several open ended questions. Analysis of the teacher survey data revealed that the majority of the teachers strongly agreed with the content and presentation methodology of these supplemental reading lessons. There were three teacher participants who consented to participate in the teacher survey. The mode score was used because it showed how the majority of the participating teachers felt about each of the statements. The table below illustrates the analysis of the ranking data from the teacher stakeholders.

Table 3

*Ranking Data from the Teacher Survey*

| Question | *n* | Mode |
|---|---|---|
| 1. The lesson plans are standards-based using the Florida Access Points (alternate achievement standards). | 3 | 5 |
| 2. The lessons were helpful for my students to gain an understanding of the required content. | 3 | 5 |
| 3. I had to make modifications before implementing the lesson plans in my classroom. | 3 | 5 |
| 4. It was beneficial for my students to have a content related hands-on-activity to accompany each of the lessons. | 3 | 5 |
| 5. Many of my students are kinesthetic learners. | 3 | 5 |
| 6. Student learning gains were a product of using these lesson plans. | 3 | 5 |
| 7. Using essential questions to state lesson objectives help me focus my lesson content. | 3 | 5 |
| 8. I think changes to the lesson plans need to be made. | 3 | 3 |
| 9. It was helpful for me to create lesson plans in collaboration with my grade level colleagues. | 3 | 5 |

Overall, the teachers felt that these lessons were a valuable asset to the instructional programs at the school and they should continue to be used. There were five open-ended questions included in the Teacher Survey. The responses were coded (Creswell, 2012) using these predetermined themes: positive effects of lessons, opportunities for refining the collaborative process of lesson plan development, negative effects of collaboration to create lesson plans, and student achievement.

**Positive effects of lessons.** Teachers felt that these lessons had a positive effect on lesson presentation and delivery which included if the students were engaged in the instructional delivery of the lesson. It was unanimous that the teachers felt that these lessons and their related activities helped students master the lesson objectives. “Students were engaged in the lesson content and the related hands-on activity.” “Students really enjoyed having an activity to do after the story was read to them. Many students began to look forward to the activity each day.” “Since the lessons were presented in the same order each day, the students became familiar with the order of the lesson and it became a part of their daily schedule and their reading class.” It was noted that it was quite helpful that these lessons also included pre-made assessments that could be used to check for student understanding. “It was nice having the assessment for each lesson already done and ready to use.” These lesson plans presented the students with age-appropriate children’s literature using teaching strategies that encouraged engagement and participation.

**Opportunities for refining the collaborative process of lesson plan development.** Throughout the collaborative development of these supplemental lesson

plans, the teachers recognized how difficult it was to reach agreement on the lesson content and the corresponding activities to go along with the lesson. Teachers realized that each teacher was bringing their unique teaching style to share ideas with the group. As a result, the group came to value the diverse teaching experiences of each member. Teachers stated "these lessons needed to contain more hands-on activities for the different levels of complexity." Another teacher stated "the lesson plans should contain more sensory experiences to meet the sensory processing issues of the students in their classrooms." Whereas another teacher felt, "it would be beneficial if the lesson plans were developed and presented in a way that it was easy for someone unfamiliar with the lesson plan documents to know what came first, next, and last." Each teacher felt the development, use, and continued use of these supplemental reading lesson plans would be a continued work in progress.

**Negative effects of collaboration to create lesson plans.** At the end of each collaborative session, teachers had a completed lesson plan to use. However, because the teacher taught students that had significant physical, behavioral, language and/or cognitive disabilities, they were required to make modifications to meet the individual needs of their students. Even after working on the lesson with their grade level colleagues, teachers had to go back to their classrooms and make modifications for their individual students. One teacher noted it took "30 minutes to make the needed changes," while another noted it took "two hours to make the modifications needed," then another teacher stated it took up to "five hours to make the modifications necessary to present the lesson to her students." Furthermore, teachers left the collaboration session and had to

gather the materials necessary to present the lesson to their students. The effort of the teachers and the content of the supplemental reading lesson plans helped students gain an understanding of lesson content.

**Student achievement.** As with any lesson, teachers wanted to increase the engagement and the student's ability to recall key components of the reading lesson by using teaching strategies they felt would keep the students engaged in the lesson. Each of the participants agreed that the lesson plans should continue to be used at the school. One teacher noted that "these plans were useful and could be built on based on the individual needs of students inside his/her classroom." Each teacher felt that they were "effective in helping the students learn new skills." Finally, each teacher noted that these plans were used to "differentiate the lessons for each of the students in his/her classroom to meet the unique needs of each student in their classrooms." Each of the teacher participants agreed that the lesson plans should continue to be used at the school with the improvement that they have provided within their survey responses. As one teacher wrote "these lesson plans provide students with exposure to age appropriate literature with corresponding activities that meet their unique learning needs."

**Parent surveys.** The parent survey asked the parent participant to rank several questions using a one to five scale (where one was a strongly disagree rating, three was an agree rating, and five was a rating of strongly agree) and respond to several open ended questions. The Likert-scaled survey questions were analyzed using quantitative methods of data analysis and the open ended questions using qualitative methods of data analysis. Specifically, the Likert-scaled survey questions were analyzed using descriptive

statistics. The open-ended questions were analyzed using qualitative methods by reading the response, coding the response based on predetermined typologies, and organizing these responses based on the theme presented. The table below provides an illustration of the analysis of the ranking data from the parent stakeholders.

Table 4

*Ranking Data from the Parent Survey*

| Question | *n* | Mean | Mode |
|---|---|---|---|
| 1. The lesson plans are standards-based using the Florida Access Points (alternate achievement standards). | 6 | 4.17 | 5 |
| 2. The lessons were helpful for my child to gain an understanding of the required content. | 6 | 4.33 | 5 |
| 3. It was beneficial for my child to have a content related hands-on-activity to accompany each of the lessons. | 6 | 4.33 | 5 |
| 4. My child likes to complete physical activities. | 6 | 4.50 | 5 |
| 5. My student improved his/her performance on the Florida Alternate Assessment between grades 3 and 4 and/or grades 4 and 5, etc. | 6 | 4.00 | 3 |
| 6. As a parent, I think changes to the lesson plans need to be made. | 6 | 1.67 | 1 |
| 7. It was helpful for me to see the activities my child completed during Reading/Language Arts while he/she was at school. | 6 | 4.50 | 5 |

After careful analysis, the survey data would suggest that the majority of the parents feel that these lessons were beneficial in improving the reading skills of their student as well as their overall score on the Florida Alternate Assessment. The mode is provided in the analysis of the survey data based on the fact that it represents the most common ranking

given by the respondents. With the very small sample size, the mode aids in the understanding of the overall survey results from the participants.

**Positive effects of lessons.** Parents indicated that the major positive effect of these lessons were the work samples that were sent home each week with their child so they could review and have an understanding of what was being taught in their child's classroom. These work samples included a hands-on activity that related directly to the lesson that was being presented in the classroom. One parent stated "I enjoyed seeing what their son did in the class." Another parent stated "all work was satisfactory and helped me know what my daughter was doing each week in class." A parent participant said that "this was the first time I had an opportunity to see that my daughter was doing at her school while comparing it to what her brother was doing at another school." An additional parent said, "my child seemed to have been exposed to the book and its content when we read it together again at home. It was nice to see that he seemed to enjoy the experience."

**Opportunities for refining the collaborative process of lesson plan development.** The parents felt it was important for their child's teacher to understand their son/daughter's preferred learning style and create learning experiences that would be helpful for them. A parent said "my son is a hands-on learner so he enjoys participating in activities other than doing a worksheet. A worksheet is hard for him as he has limited writing skills." Another parent responded "yes, these lessons were very helpful because the kids had to do something as a result of what they read – most kids today are lazy." A parent stated "my child switched classes at the semester and it was

nice to see that the lessons continued. I could tell the teachers had worked together on the lessons that were presented in their classrooms." Additionally, a parent said "these lessons helped provide my child with educational experiences similar to those in a regular classroom. That makes me very happy. I never thought my child would be able to have those experiences in school."

**Negative effects of collaboration to create lesson plans.** The parents did not provide any type of negative comments about the lesson plans or their use in the classroom. Each of the parents stated that "no changes" to the lesson were necessary. The participating parents did not provide any other input or recommendations for changes to the content, use, or format of the supplementary reading lesson plans. As noted in prior sections, the parents were pleased that their child was being exposed to age-appropriate children's literature that included an authentic hands-on experience.

**Student achievement.** Parents looked to the classroom teacher to implement strategies that could provide their student with exposure to age-appropriate literature and in hopes of improving their performance on the state's Alternate Assessment. One parent thought that the use of these lesson plans helped the student practice listening and engagement skills that could be seen at home as well. This parent stated "I am amazed at how my child will sit and listen to me read the book that he recently studied in school. He has never done that before." Another parent stated that "my child is able to recognize and answer simple questions about the book by pointing to pictures in the book." An additional parent note that "my child has significant behaviors and I am really impressed that she will stay engaged in these books for about 10 minutes at a time. Amazing!"

**Principal survey.** The Principal Survey solicited the participant to rank several questions using a one to five Likert scale (where one was a strongly disagree rating, three was an agree rating, and five was a rating of strongly agree) and respond to several open ended questions. The table below provides an illustration of the analysis of the data that were collected using the Principal Survey.

Table 5

*Ranking Data from the Principal Survey*

| Question | *n* | Mode |
|---|---|---|
| 1. The lesson plans are standards-based using the Florida Access Points (alternate achievement standards). | 1 | 3 |
| 2. The lessons were helpful for students to gain an understanding of the required lesson content. | 1 | 2 |
| 3. Teachers had to make modifications before implementing the lesson plans in their classrooms. | 1 | 3 |
| 4. It was beneficial for my students to have a content related hands-on-activity to accompany each of the lessons. | 1 | 3 |
| 5. Many of the students at the participating school have a kinesthetic learning preference. | 1 | 3 |
| 6. Student learning gains were a product of using these lesson plans. | 1 | 1 |
| 7. Using essential questions to state lesson objectives help teachers focus lesson content. | 1 | 3 |
| 8. I think changes to the lesson plans need to be made. | 1 | 3 |
| 9. It was helpful for teachers to create these lesson plans in collaboration with their grade-level colleagues. | 1 | 3 |

**Positive effects of lessons.** The principal felt that the professional development activity of creating supplemental elementary reading lessons for the elementary grade teachers was very helpful to build teamwork, share ideas, and work together to meet a

common goal. The principal stated “the teachers were worked so hard in ensuring that these supplemental reading lessons incorporated key research-based strategies to meet the instructional needs of students with significant disabilities.” Also, “teachers ensured that these lessons targeted specific learning standards specific to students with significant disabilities.” “I was thrilled when the teachers chose to anchor these lessons to age-appropriate children’s literature that non-disabled students are exposed to at this grade level.” “I am one that discourages the use of a worksheet in instructing this student population. It was uplifting to note that each of these lessons included an authentic hands-on activity that related to the lesson and the learning standard being addressed.”

**Opportunities for refining the collaborative process of lesson plan development.** The principal utilized a Professional Learning Community (PLC) work environment to facilitate the development of these supplemental reading lesson plans. “The biggest obstacle is creating a nurturing work environment where teachers work as a team and are willing to share their ideas with others.” “The elementary teachers fostered and encouraged that everyone in the group contributed ideas in the lesson plan development process. It was a remarkable experience to observe.” The principal also noted “I also wanted to build collaboration skills of these teachers in an effort to increase student achievement on the alternate assessment as well as other assessment tools at our school.” “This was a very big project for our teachers and the outcome was remarkable and met the objectives of creating elementary reading lesson plans that focused on the alternate reading learning standards.”

**Negative effects of collaboration to create lesson plans.** The main concern that developed during the development of a single lesson plan to use during was the time it would take for each teacher to modify the lesson to meet the unique needs of each of the diverse students in their class. The principal noted "The changes to the lesson plans would begin with changes and or significant modifications to the standards such as identifying the illustration of the book, determine whether the book is fiction or non-fiction, drafting, revising, editing for language conventions, etc. The principal responded "Due to the unique complex disabilities of our students it is necessary for teachers to modify the existing lesson plans. It is only a guess, but I would imagine that it takes teacher between two to three hours to modify and make the necessary changes to the given lesson plans." Next, it would be helpful if there was a clear more precise response modality identified in these lesson plans for the variety of students that we serve." "Teachers need to ensure that each students' communication, physical, and developmental needs are address through the implementation of the reading lesson in the class."

**Student achievement.** The principal noted that the main objective for the creation of these supplemental reading lesson plans was to increase the reading performance of elementary students on the state's alternate assessment. "Assessment data revealed that the majority of elementary students did not improve their reading scores on the alternate assessment. However, there were numerous other benefits to using these lessons. These benefits included: increased the student's ability to be engaged in an age-appropriate read-aloud, completed authentic hands-on activities related to the story, and provided

exposure of children's literature to the student." The principal stated "Yes, because being exposed to literature is always a good thing if done in a positive, creative manner, with modifications that are appropriate for the student."

**Classroom Observations**

Each teacher was observed on the date and time that was scheduled with this researcher. Field notes were taken by the researcher during each observation. There were three classrooms in which observations took place. During the classroom observations, the following classroom observation protocols (Appendix E) were used:

- Identify the topic of the reading lesson
- Identify the teaching strategies being employed
- Identify the communication strategies being used
- Identify the hands-on activity being completed
- Identify the adult staff present during lesson presentation
- Identify how the educational assistants were being used during the lesson

Once the classroom observations were concluded, I took all of the notes and transcribed them. Once the Field Notes were transcribed, I took them and organized them based on the *Classroom Observation Protocols*. The *Classroom Observation Protocols* were used as the characteristics by which the data were organized. These protocol characteristics were treated as typologies (Creswell, 2012; Hatch, 2002) or predetermined codes for purposes of analyzing the data.

**Identify the topic of the reading lesson.** In each classroom, the teacher showed the students the book and said "today we are reading the children's book *The Very Hungry Caterpillar,* by Eric Carl." The teachers used a hard back copy of the book that was rich in color and illustrations. Throughout the lesson, the teacher asked selected students what happened at "the beginning, middle, or end of the story." The teachers chose a different student to answer throughout the lesson. The teachers chose an age appropriate children's literature piece to base their reading lesson.

**Identify the teaching and communication strategies being employed.** Each teacher showed the students the pictures in the book and made comments like "what is this creature?" "What does he like to eat?," "what happened to this creature?" The teachers in each classroom had developed pictures paired with words that showed the major character, food items, and activities that occurred in the book. After doing the picture walk through the book, each teacher introduced and taught the selected vocabulary for that day. In each class, the teacher presented a picture paired with word for "caterpillar," "butterfly," and "eat." In each class, the teacher limited the number of vocabulary words presented to three words per day. Each teacher was using the Picture Exchange Communication System (PECS), an augmentative communication system in which the student uses pictures paired with words to respond to questions, make requests, or to comment, to allow the students to respond. However, in one classroom, the teacher had students who were able to talk and these students were responding to the question "What is this?" using their verbal speech. In another class, a teacher was using an iPad with an augmentative communication on it for the student to respond to the question

"What is this?" The teacher had preloaded the pictures paired with words onto the iPad application. The student selected the picture of the vocabulary word and the iPad augmentative communication app read the selected answer to the teacher. It was evident, that each teacher differentiated their lesson to utilize various communication strategies so that their students could interact with the book.

**Identify the hands-on activity being completed.** After reading the story to the students, the teachers worked on completing a caterpillar using a clothespin. Each teacher had completed a sample of the hands-on activity and showed their students the completed task and said "we are going to make a caterpillar clothespin today. The caterpillar was the main character in our book today." The materials the teachers had available were various colored pompons, glue, wiggle eyes, and pipe cleaners. First, the teachers passed out a clothespin to each student. Then, the teachers had the educational assistants help each student select four colored pomp pons for their clothespin. The educational assistants asked each student to make a selection using their individual mode of communication (e.g., PECS, verbal speech, iPad augmentative communication app). Each educational assistant asked the same question "What color of pompons would you like for your caterpillar?" Then, the educational assistants assisted each student with the glue needed to place their pompons on the clothespin. After the pompons were glued to the clothespin, the wiggle eyes were glued to the first pompons on the clothespin by each student. Finally, each student added a two small pieces of pipe cleaner to the first pom pom to make the caterpillars antennae. After every student completed their caterpillar clothespin, the teachers asked the students to "show me your caterpillar." Each student pointed or

gestured to their clothespin caterpillar. The students seemed to enjoy this activity. In one class a student said to the teacher “I like my caterpillar.”

**Identify the adult staff present during lesson presentation and how the educational assistants were being used during the lesson.** In each class, the educational assistants were placed among the students to help support, encourage, and assist the teacher as needed throughout the reading lesson. Each educational assistant help the student as much as was needed. In one class, the educational assistants provided verbal prompts such as “what do you need? and “What do you need now?” In another classroom, the educational assistants had to physically prompt the students and use the student’s hand to complete the task. This is called hand-over-hand assistance. In another class where there were significant behavior students, one student jumped up and screamed and the teacher told the educational assistant “take him for a walk.” In each class there was a teacher and three educational assistants to help the children and the teacher. In one class where there were medically complex students, there was also a nurse in the classroom. The educational assistants are a fundamental component of creating a successful learning environment for this student population.

# Section 4: Results

This section of this study will provide the results of the study and the overall findings of this project. Assessment scores, survey data, and observation data will also be presented in this section. Moreover the overall themes that emerged through the collection of qualitative project data is presented and discussed. Finally, the limitations of this evaluation are also discussed. The quantitative and qualitative data is presented below in narrative and table formats.

## Findings

In this section, I will present the findings and themes that emerged as part of the data analysis of the collected data for this project that included both quantitative and qualitative components. The findings were based on data that was collected from student assessment scores, stakeholder surveys, and classroom observations. The three themes that emerged are:

1. All students can learn no matter their disability or the intensity of their disability;
2. Teacher collaboration increases the quality of the lessons that are ultimately delivered to students and builds community among grade level colleagues;
3. Students are more engaged in the lesson if authentic hands-on experiences are used to reinforce key concepts or learning standards of the lesson.

In this section, I will provide specific supporting details of the underlying meaning of these themes based on the results of the data analyses.

**All students can learn no matter their disability or the intensity of their disability.** The student assessment scores revealed that four of the seven student

participants in this study improved, one stayed the same, and two decreased in their proficiency. In addition, while reviewing the teacher, parent, and principal Likert Scale survey responses, the mode score of all three teacher participants was five indicating that the teachers felt, among other things, these lessons enhanced student learning in their classrooms. The parent survey results reveal that the majority of the parent participants felt that the lessons were beneficial in improving the reading skills of their child as well as their overall performance on the state's Alternate Assessment. The principal survey responses noted that the lesson plans did not necessarily increase student achievement on the state's alternate assessment but did show progress in other areas of student learning. This quantitative data helps to mathematically support this theme across all data sources.

Qualitative data was also an important component of this doctoral study. The teacher, parent and principal open-ended survey responses showed that, according to one teacher, "these lesson plans were effective in helping the students learn new skills." A parent stated that "this was the first time I saw the work that my child is doing during the reading class. It is awesome to see him participating in the class and the lesson." According to the principal, "Assessment data revealed that the majority of the elementary students did not improve their reading scores on the alternate assessment. However, there were numerous other benefits to using these lessons. These benefits included: increased the student's ability to be engaged in an age-appropriate read aloud, completed authentic hands-on activities related to the story, and provided exposure of children's literature to the student." In addition, the principal made it clear that "being exposed to literature is always a good thing if done in a positive, creative manner, with modifications that are

appropriate for the student." The classroom observation data presented that each teacher was teaching the same lesson but had modified the necessary components to help the students specifically in her classroom could be successful. One teacher stated during the classroom observation "I am so proud of you boys and girls for participating in today's reading lesson and for working so hard. Thank you!"

**Teacher collaboration increases the quality of the lessons that are ultimately delivered to students and builds community among grade level colleagues.** The student assessment scores showed that 57% of the students increased their proficiency in reading as measured by the state's alternate assessment. On the teacher survey, all the teachers reported that it was helpful for them to collaborate in an effort to create these supplemental reading lessons for their students. The principal agreed that the teachers and students benefited from the collaborative approach to creating these elementary reading lesson plans. When teachers come together to create meaningful classroom experiences for the students, all stakeholders observed the difference these lessons make in the lives of these students.

Teachers came together to collaborate and share their experience and education with their grade level colleagues. One teacher felt it was necessary to "contain more sensory experiences to meet the sensory processing issues of the students in the classroom." While another one felt it was important "to incorporate an assessment within each lesson." Another teacher, wanted teachers to know "students enjoy having a hands-on activity to complete as part of their reading lesson each day." Parents also recognized the fact that teachers had worked diligently to create standards-based lessons for the

child. One parent said “my child seemed to have been exposed to the book and its content when we read it together again at home. It was nice to see that he seemed to enjoy the experience.” Equally, important the principal stated that the teachers were able to “come together as a team to share their ideas and provide quality reading lessons for their students.” During the classroom observations it was evident that the teachers worked together to ensure the lessons were consistent within their grade level. For example, all students were learning the same vocabulary “caterpillar,” “butterfly,” and “eat.” during their reading lesson during that week. The teachers had focused their intended outcomes for the lesson by having the same questions that they wanted the student to answer by the end of the lesson. The questions that were observed being asked during the observation were “what is this creature?” “What does he like to eat?” and “What happened to this creature?” The teacher was focused on helping the student know what happened in the beginning middle and end of the story through the use of a graphic organizer. The data from this study reveals that when teachers work collaboratively to provide meaningful instruction student performance increases.

**Students are more engaged in the lesson if authentic hands-on experiences are used to reinforce key concepts or learning standards of the lesson.** The mean assessment score increased from year one to year two, went down by .14, and then returned to the same mean score as in year one. It was noted that it is important to understand that there were factors that impacted these test results and that these students have significant cognitive, behavioral, and/or physical disabilities. In the teacher survey, each teacher strongly agreed that their students benefited from hands-on activities and

their students were kinesthetic learners. In addition, all the parent respondents indicated that they strongly agreed that the use of hands-on activities was beneficial for their child. Finally, the principal agreed that hands-on activities benefited the students in the classrooms. Each stakeholder felt hands-on activities helped students increase their academic performance in the area of reading.

The open-ended survey responses and classroom observation data demonstrates that students are more engaged in the lesson if authentic hands-on experiences are used to reinforce key concepts or learning standards of the lesson. Each participating teacher felt that "this lesson with their complimentary hands-on activity helps our students remain engaged in the lesson." Whereas, the parents, thought it was "enlightening to see the work samples that were sent home each week with my child so I would have an understanding of what is being taught that week in class." Another parent wrote, "I am glad that my child does not have to do a worksheet as a classroom activity. A worksheet does not work for him." The principal stated that "it was uplifting to note that each of these lessons included an authentic hands-on activity that related directly to the topic being taught in the classroom." During the classroom observations, I observed the students smiling and doing what they were asked to do complete their pom pom caterpillar. The educational assistants were all working very closely with the students to complete their project and provide the necessary support each student needed. As the data reveals, the students were more engaged in the reading lesson as a result of their caterpillar pom-pom activity.

## Evidence of Quality

In this research study, there were three sources of data that were collected and analyzed. These data sources included:  assessment scores, stakeholder surveys, and classroom observations. This project contained data that was analyzed using quantitative and qualitative protocols. To ensure quality of the data and its analysis, triangulation was used. Triangulation is a technique that helps to validate data across two or more sources (Patton, 2002). During the analysis of data there were no discrepant data that needed to be described. When conducting research it is important to ensure that there multiple data sources exists to help provide clarity and fidelity to your research (Patton, 2002).

The major limitation of this study was the small number of participants in this study. Furthermore, the scope of this project was limited only to one academic subject, reading, in an area where little research has established correlations to other subjects or student achievement on a state's alternate assessment. Therefore, the findings from this study are not generalizable beyond the educational institution where the data were collected.

Section 5: Discussion, Conclusions, and Recommendations

## Introduction

Through the analysis of alternate assessment scores for grades three to five students, the ESE Center School's elementary teachers identified a need for a supplemental reading program that focused on the state's alternate achievement standards for elementary students with significant cognitive disabilities. As a result, the teachers worked collaboratively to develop the needed lesson plans. These lesson plans used age appropriate children's literature and incorporated hands-on activities with each of the lessons created. The teachers began using these lesson plans beginning in the 2010 school year. The administration and elementary teachers wanted to know how effective these lessons were in increasing student achievement on the state's alternate assessment. This project study was initiated to evaluate the effectiveness of the elementary supplemental reading program.

The study involved a formative program evaluation of the students' alternate assessment scores (student records), surveys from the various stakeholders (teachers, parents, and principal), and classroom observations. This study consisted of the collection of quantitative and qualitative data. The quantitative data consisted of the students' alternate assessment scores and the Likert Scale responses provided by the teachers, parents, and principal on the stakeholder survey. The qualitative data consisted of the open-ended response questions that were included in the stakeholder survey. Overall, the surveys were developed by me to determine the stakeholder's perspective on the use of

the supplemental reading program and its use within the classroom. The quantitative data were analyzed using measures of central tendency, and the qualitative information was evaluated through the identification of emergent themes from the survey open-ended question responses. The findings from the analysis of these data sources will be used to help inform the decision makers of the future direction and use of these elementary supplemental reading lesson "plans."

Triangulation of three data sources (student assessment scores, stakeholder surveys, and classroom observations) were used to add credibility to this doctoral study. Moreover, member checking was used to ensure accuracy of the classroom observation field notes. Each participating teacher was sent a copy of the field notes and asked to review them and make any notations to indicate changes that needed to be made in this documentation. A detailed description of the data analysis processes and procedures used can be found in Section 2 of this doctoral study document. However, it is important to understand that the major limitation of this study is the small sample size and the inability to generalize this work into other locations because of the unique student population and school composition.

Section 3 provides information that provides details of this study. After a long search for ready-to-purchase curriculum materials for students with significant disabilities, the teachers found very few resources were available. As a result, the teachers, along with the principal, made the decision to create supplemental reading lesson plans as part of their collaborative planning (Professional Learning "Community") meetings that were scheduled each month (Doig & Groves, 2011). Before the writing

began, teachers worked to identify the essential components of the lesson plans they would create. These components were:

- Lesson plans would clearly focus on the alternate achievement standards for students with significant disabilities;
- Age-appropriate children's literature would be used;
- Hands-on activities would accompany each lesson;
- The use of worksheet based activities would be minimized;
- Communication training would be a part of each lesson and;
- Varying forms of assessment would be used to frequently assess student's understanding of concepts.

The research question for this project was: How effective is the teacher written kinesthetic based reading program for students in grades three through five who take the statewide alternate assessment? This section provides additional insight into the project and its findings. A large portion of this section provides a critical analysis of the literature that helps with understanding the underlying meaning of the findings discussed in Section 3. The literature review in Section 2 is related to the problem. The literature review in Section 3 is related to the findings and to the genre of the project, that is, program evaluation and the results will be shared with the stakeholders by providing them a copy of this written narrative. Section 3 continues with a project evaluation document that gives an overall summary of the project and can be shared with various stakeholders. Finally, this section ends with a discussion of the social change that this study can support in the local school community and beyond.

## Interpretation of the Findings

The literature review conducted in Section 2 laid the foundation for the identification and rationale for this doctoral study. Within this literature review, the problem was clearly defined and several concepts of interest emerged as possible characteristics of that were included in the development and implementation of the supplemental elementary reading lesson plans for students with significant disabilities. The formative program evaluation identified the (strengths and weaknesses) in the quantitative data and the qualitative data identified the major perceptions (reported in this doctoral study as themes) that were reported by the stakeholder groups. A formative program evaluation can contain both quantitative and qualitative data elements (Patton, 2015). These emergent themes were: positive effects of lessons, opportunities for refining the collaborative process of lesson plan development, and negative effects of collaboration to create lesson plans.

The theoretical foundations and relevant literature relating to the instruction of students with significant disabilities was reported in Section 2 of this paper and were examined again throughout the data analysis phase of this doctoral study. The relationship between the literature review in Section 2 and the final critical analysis of the quantitative and qualitative data is evident in the overall themes of this project that were presented in Section 2 and the relevant literature is being examined in this section. The themes that were examined in Section 2 were:

- Positive effects of lessons;

- opportunities for refining the collaborative process of lesson plan development and;
- negative effects of collaboration to create lesson plans.

**Theme 1: Positive effects of lessons.**

In an effort to have positive impact on student learning inside the classroom, the teacher must demonstrate the dimensions of teacher effectiveness. Effectiveness is a concept used to define the multitude of tasks of teaching and the related work in which a teacher must complete (Stronge, Ward, & Grant, 2011). These dimensions according to Stronge et al. (2011) included:

- Instructional delivery: The responsibility of the teacher to connect the curriculum to the student.

Instructional Delivery also includes these aspects of learning:

  - Instructional differentiation: The method by which teachers tailor instruction to the individual needs of the students in their classroom through the instructional strategies that are employed.
  - Instructional focus on learning: The focus of the teacher on a learning outcome or lesson objective by which the teacher works to ensure student mastery of lesson content.
  - Instructional clarity**:** The ability of the teacher to effectively explain content clearly to students and to provide clear directions to student throughout the instructional process including the subsequent lesson activities that the students are asked to complete.

    - Instructional Complexity: The teacher recognizes the complexities of the subject matter and focuses the lesson on meaningful conceptualization of knowledge rather than mere facts in isolation. This is especially important during the delivery of mathematics and reading lessons.
    - Expectations of student learning: The ability for the teacher to communicate high learning expectations to their students.
    - Use of technology: The ability to incorporate technology into the lesson to increase student engagement and to evoke higher order thinking in students during the lesson.
- Student assessment: This is an ongoing process by which the teacher accesses student learning before, during, and after the lesson is delivered.
- Learning environment: This is the importance and maintenance of a positive and productive classroom by which students follow routines and take ownership in their learning.
- Personal qualities: This is important for the teacher to convey to the students that he/she cares about their students.

These traits are especially important to the special education teacher. In order for the teacher to connect with the student and be able to work with him/her, the teacher must ensure these effective teacher traits are employed. Otherwise, the teacher will not be able to gain the trust or respect of the student to help them meet their individual educational needs. One method by which a teacher can improve his/her pedagogy is by participating in meaningful professional development activities.

**Theme 2: Opportunities for refining the collaboration process of lesson plan development.** The research on the effective methods by which to develop lessons for students with significant disabilities is growing. Reading research suggests that this student population benefits for highly effective instruction that includes comprehension and storybook read aloud (Coyne et al., 2012). Years ago instruction for students with significant disabilities involved drill and practice of sight word vocabulary and other basic literacy skills in isolation of a broader context (Coyne et al., 2012). When I began in special education, the research focused on teaching students functional vocabulary that they could access in the communities by which they live. Today, with the evolution of inclusionary visions by legislative bodies, research is being conducted to determine the effectiveness of providing students with access to methods that are employed in a general education setting, such as the use of age-appropriate read aloud. As a result, planning processes for teachers of students with significant disabilities is evolving and the applications of such planning structures as Universal Design are being investigated.

A new approach that is gaining in usefulness is the Universal Design for Learning (UDL). With this population and UDL, these students should be enabled to gain access to research-based methods. In addition with the integration of UDL, teachers should use technology to help students gain access to this more supportive learning environment (Coyne et al., 2012). In UDL, the framework is established so that the learning environment is designed to reduce potential barriers to learning (Coyne et al., 2012). UDL is based on the belief that designing instruction for diverse learners results in increased student achievement (Coyne et al., 2012). Technology has opened the door for

teachers to create a more supportive environment in the classroom. For example, through the use of an interactive white-board, the teacher can use web resources that solicit student responses by featuring fun and creative graphics that the students enjoy and want to engage.

A resource that is becoming useful to teachers of students with significant disabilities is e-books. E-books are storybooks available online that include storybook illustrations and are able to be read to the student (Coyne et al., 2012). These texts allow the student to actively interact with the text through the book reading and subsequent comprehension activities that are employed by the teacher (Coyne et al., 2012). Students love being able to interact with technology. Often, students with significant disabilities have difficulty in communication or are even non-verbal students. These e-books provide the visual/picture prompts necessary for the student to interact with the book through relevant follow-up activities. Teachers work to tailor their instructional delivery methods based on the learning preferences and needs of their students in an effort to increase student achievement.

**Theme 3: Negative effects of collaboration to create lesson plans.** There are several factors that create the perception of teachers having a negative effect on collaboration to create lesson plans. These factors are the time it takes to collaborate with fellow teachers, modify the lesson plan content based on the students in their individual classroom, and gather and prepare materials for each lesson. Special educator teachers must possess expert knowledge in the various student disabilities, specific interventions, time assessment and student data collection and analysis, general education curriculum and standards, teaching pedagogy that include effective strategies for working with students with disabilities (Benedict et al., 2014). Special educators are required to understand the methods needed to provide students access to the general education curriculum (Benedict et al., 2014). Moreover, a key component of the role of a special educator is the ability to collaborate (Benedict et al., 2014). The special educator teacher collaborates with grade level colleagues, general education teachers, parents, and administration as required. This collaboration takes a considerable amount of time to complete. However, the benefits can be seen in student achievement.

The special educator has expert time management skills. The special educator understands that every minute counts to their work and the work with a student inside the classroom (Benedict et al., 2014). They plan their days to the minute and works diligently to accomplish everything planned (Benedict et al., 2014). The role and responsibilities of a special educator are relentless but they never give up (Benedict et al., 2014). I use a calendar and plan each day. I pay special attention to what I plan for myself before and after school. Often, I come in to work early or stay late in an effort to get everything that

needs to be completed. As a special educator, I know that my work makes a difference and can be seen each day when you work with a student. These student successes are what make all of your efforts worthwhile.

There is power in numbers. When teachers solicit the advice of other teachers through collaboration, the information gathered is enhanced (Benedict et al., 2014). Moreover, when teachers gather to work specifically on lesson plans, the quality of the plans are improved when each person shares their experiences and knowledge with the group (Benedict et al., 2014). Each teacher brings to the table different experiences. These experiences provide an insight to many different student circumstances and how the teacher was able to handle the situation (Benedict et al., 2014). This knowledge might include: what teaching strategy to employ, how to handle a behavior situation, or how to remediate students that are not grasping a given topic (Benedict et al., 2014). When talking with your teacher colleagues, they might offer a new perspective on a classroom situation or even give you specifics on how they handled a similar situation. By being able to talk with your teacher colleagues, you get the feeling you are not alone in your journey to enhance student learning in your classroom.

## Implications for Social Change

This section describes the implication for social change at the local and broader levels in society. The potential positive changes that the implementation and future use of these supplemental elementary reading lesson plans are addressed in this section. The section concludes with a description of potential positive social changes for others outside of the local community.

**Local Community**

Students with significant disabilities are a unique student population. Teachers of these students have a multitude of considerations that must be taken into account when planning instruction for these students. The teacher-written supplemental reading lesson plans that were written and evaluated in this doctoral study provided the students a standards-based curriculum that incorporated research based components. Within the school community by which these lesson plans are used, this program evaluation provides the data necessary for the administration to make a decision as to whether or not to continue the use of the lesson plans. Whether or not the lesson plans are continued, it is important to consider the on-going use of lesson plan components. The content of the lesson plans incorporated the use of age appropriate literature. Hopefully, the administrators will decide to continue using age appropriate literature in this grade level and possibly expand its use into the other grade clusters at the school (e.g., middle and high school grade levels). In addition, based on feedback from each stakeholder group, the use of hands-on activities had a benefit. Finally, it is highly recommended that the administrators look into making improvements to these lessons using the procedures and protocols identified in the Lesson Study professional development activity. As identified in Section 2, there are a variety of benefits in the continued use of these supplemental elementary reading lesson plans once the lessons have been improved based on teacher input that can be obtained through the Lesson Study professional development process.

**Far-Reaching Benefits**

The benefits of this program evaluation I want to emphasize are that all students can learn no matter their disability or intensity of their disability. Even though learning gains may look different for students with significant disabilities, student achievement does not place. As a result, this program evaluation can be used by other ESE Centers throughout the school district and the state in an effort to meet the instructional needs of the students served in these center schools. By embracing this study, other ESE Center administrators can facilitate the discussion about the incorporation of age appropriate literature as part of the reading curriculum for students. The data obtained can help anticipate stakeholder perspectives that their school might experience. Hopefully, other ESE centers will look at incorporating age appropriate literature in the curriculum of their students as well as supporting these lesson concepts through an authentic hands-on activity related to the lesson being presented. The ESE school where these plans were developed and implemented understands that there are improvements that need to be made to the lessons. Through Lesson Study, a collaborative professional development activity for its teachers, these reading lessons can be used as future research lessons during upcoming Lesson Study Cycles for the elementary teachers. The data that are obtained through these Lesson Study Cycles can serve as the basis for future enhancements of these supplemental reading lesson plans and can be shared with other center schools within the district and the state as requested.

The goal of this project was to evaluate the effectiveness of the supplemental elementary reading program that was created by the school's elementary teachers to

improve student achievement on the state's alternate assessment for students with significant disabilities. First, the student assessment scores were analyzed to determine if there was any insight that could be drawn from student performance on this exam. Next, this study examined the perceptions of the various stakeholders (parents, teachers, and principal) regarding the use of these supplemental reading lesson plans through the use of a stakeholder survey. It was my goal to gain a deeper insight in to what impact these lesson plans had on the student achievement on the alternate assessment, parent perceptions of the lesson content and work samples, and provide an informed decision as to the future use of these supplemental reading lesson plans.

The literature review that was conducted in section 1 helped to provide the foundation for and support the premise of this doctoral study. Moreover, the Section 1 literature review provided a thorough discussion of the current literature regarding the phenomenon of interest in this study. A formative program evaluation approach was selected for this project because the data that was reviewed was collected after the supplemental reading plans had been used and the students had already taken the alternate assessment (Patton, 2002). The findings of this study serve as the basis of program evaluation.

For this doctoral study, a formative program evaluation approach was selected in an effort to gain a deeper understanding of the effectiveness of the use of elementary supplemental reading lessons. According to Patton, through a formative evaluation "the evaluator may, through feedback of initial findings to program participants and staff, begin to influence the program quite directly and intentionally (given the job of helping

improve the program)" (p. 76). The purpose of the analyzing the student achievement data was to help in the understanding of the other data that were collected. When working with this unique student population, student achievement can be demonstrated in a variety of ways. These ways include: increase in alternate assessment scores, decrease in the intensity of prompting required for the student to participate and complete lesson related activities, and students reduce resistance or non-interest in participating in lesson related activities.

I collected assessment score data for seven students. In addition, I collected stakeholder survey data from three teachers, six parents, and one principal. Three classroom observations were also completed. I kept detailed field notes from the classroom observations that aided in the data analysis. The research question guided the data collection throughout this project. The quantitative data was analyzed using measures of central tendency. The qualitative data was coded and analyzed to determine the emerging themes. There were three themes that initially emerged from this data. These emerging themes were: positive effects of lessons, opportunities for refining the collaborative process of lesson plan development, and negative effects of collaboration to create lesson plans. These stakeholders provided valuable input into the overall perception of the use of the supplemental reading lesson plans. Finally, after the qualitative and quantitative data were critically analyzed, these recommendations were identified:

- All students can learn no matter their disability or the intensity of their disability.

- Teacher collaboration increases the quality of the lessons that are ultimately delivered to students and builds community among grade level colleagues.
- Students are more engaged in the lesson if authentic hands-on experiences are used to reinforce key concepts or learning standards of the lesson.

## Recommendations for Action

After careful thought and analysis of the quantitative and qualitative data presented in Section 2 and the themes which emerged, it became clear to me that recommendations needed to be made on how to improve or maintain student performance related to each of these themes. As a result, recommendations are being made based on the analysis of that data. These recommendations are:

- All students can learn no matter their disability or the intensity of their disability.
- Teacher collaboration increases the quality of the lessons that are ultimately delivered to students and builds community among grade level colleagues.
- Students are more engaged in the lesson if authentic hands-on experiences are used to reinforce key concepts or learning standards of the lesson.

It was clear to me that successful analysis of project data included the ongoing reference to literature data as well as the data that was collected through this doctoral study.

### Recommendation 1: All students can learn no matter their disability or the intensity of their disability.

Through their input on project data collection instruments, stakeholders indicated that students with significant disabilities are able to learn no matter their disability. It was

reported by project participants that this student population's learning gains just might look different than those identifiable learning gains of their non-disabled peers. The instructional strategies that were employed in the classroom were directly responsible for any learning that takes place inside and outside of the classroom. The characteristics of sound research-based instructional strategies to be used with this specific student population include:

- Using augmentative communication equipment and devices.
- Having a clearly defined lesson objective that is directly tied to an alternate achievement standard.
- Understanding what is motivational to each student (what reward can the teacher provide so that the student will engage in the lesson).
- Providing explicit vocabulary instruction.
- Using methods of systematic instruction.
- Incorporating technology into the lesson.
- Using assessment to drive the instructional process.
- Utilizing para-educators effectively throughout the instructional process.

The use of proven research-based methods of instruction for students with significant disabilities helped to improve student learning.

**Using augmentative communication equipment and devices.** All students need a voice by which they can communicate their wants and needs, initiate a conversation with someone, and to answer questions that are posed to them. It is important for teachers who

teach students with significant disabilities that each of the students in their classrooms needs a "voice" by which he or she can communicate (Cooper-Duffy et al., 2010). In addition, there is a variety of methods available to provide non-verbal students with augmentative communication supports. Augmentative Communication Support could be in the form of objects by which the student uses to communicate, use of sign language, use a speech device designed specifically for communication efforts, or to use a tablet that is loaded with an augmentative speech application to communicate with someone (Riggs & Collins, 2013). Whether it is inside a classroom or in one's community, the ability to express oneself is critical to being successful in today's world.

Storybook reading continues to be highly recommended for students who are non-readers or developing emergent reading skills. Storybook reading is considered a basic skill of literacy (Kent-Walsh et al., 2010). The reading of a storybook can also be done at home with a parent or sibling. However, several communication opportunities arise when the student is non-verbal. It is important that while reading a storybook to a non-verbal student the reader includes augmentative communication strategies so that the child can respond to various storybook elements and questions that might be posed to or from him or her. For many parents, reading a storybook to their severely disabled child is a big deal. Often, the parents of severely disabled child are not always able to read a storybook to their child because he or she will not engage in the storybook reading, lacks the means by which to communicate to their parents, or demonstrates severe behaviors. The ability to communication is a basic need of each human being. If one is not able to access written or verbal communication and interact with it, independence of the individual is

compromised (Ruppar et al., 2011). The ability to communicate is one of the fundamental elements of living a happy and rewarding life.

Teachers of student with significant disabilities use literacy instruction as a means by which students enhance their daily living skills. Literacy instruction might be a way a child with significant disabilities accesses the general education curriculum (Ruppar, Dymond, & Gaffney, 2011). Students who utilize augmentative communication systems to communicate must be able to effectively translate symbols or pictures into expressive language (Ruppar et al., 2011). It is important that the use of augmentative communication systems do not just occur in a single environment. It is important these communication systems are used in as many places as possible so that the child can communicate when he or she wants or needs to within his home or his or her community. Teachers work diligently to ensure each non-verbal student in their classrooms has a method by which he or she can communicate (often referred to by practitioners as giving a student a voice by which to communicate).

Communication efforts by a non-verbal child need to routine and occur in multiple environments and situations. In addition, all individuals must possess the ability to interpret and use information to effectively function in their everyday life (Florida Diagnostic and Learning Resources System, 2010). Information is received through a variety of methods each day; for example, through words, symbols, pictures, and experiences. It is also important for individuals to know where to go to obtain certain types of information on an on-going basis (Florida Diagnostic and Learning Resources System, 2010). This information is used for a variety of reasons that include following

verbal instructions, following written directions, making decisions, and solving problems (Florida Diagnostic and Learning Resources System, 2010). Non-verbal students must be able to communicate and obtain information on various sources within their school, home, and community in which they live. Augmentative forms of communication provides students with the needed supports to express themselves, ask questions, or simply participate in social interactions.

**Having a clearly defined lesson objective that is directly tied to an alternate achievement standard.** Historically, there has been little research or consensus on the most effective method by which to create curriculum for students with significant disabilities. According to a Finland study that was conducted, teaching that was directed at this group of students is based on normal psychological development of a young child (Kontu & Pirttimaa, 2009). In addition, most classroom teachers utilize a sensory approach to enrich the instructional process of these students (Kontu & Pirttimaa, 2009). It was important for these students to participate in an environmentally rich learning environment that is filled with a variety of activities and tasks (Kontu & Pirttimaa, 2009). Today, teachers must draw upon the historical foundations of teaching students with significant disabilities while embracing the emerging research that is being conducted with this unique student population. It is the ultimate goal of the special education teacher to meet the individual learning needs of each of their students.

Teachers must focus their instructional efforts on a single topic or learning objective when providing instruction to students with significant disabilities. The Individuals with Disabilities Act (IDEA), 2004, ensures that students with disabilities have access to the

general education curriculum. Students with significant disabilities gain access to the general education curriculum through the teacher's use of alternate achievement standards. These alternate achievement standards are designed specifically for use with students with significant disabilities (Cooper-Duffy et al., 2010). The teacher must focus his or her efforts on a single standard which could become the lesson objective. Students with significant disabilities routinely lack the ability to multi-task or to be able to understand the logical sequence of making connections to other standards or subjects (Saunders et al., 2013). It is extremely important for teachers of this unique student population to understand the developmental age of the students in their classrooms as well as the maximum amount of time each of their students can remain focused on a lesson without getting aggravated or have a behavior outburst. The building and maintaining of a positive teacher student relationship is a key characteristic of successful teachers of students with significant disabilities.

**Understanding what is motivational to each student (what reward can the teacher provide so that the student will engage in the lesson).** Teachers of students with significant disabilities must understand what each of their students' likes or dislikes are and identify what is a rewarding motivator for each student in their class. Rewarding motivators can be edibles (e.g., popcorn, candy, etc.) or non-edibles (e.g., computer time, receiving verbal praise, selecting a preferred activity) (Saunders et al., 2013). The student can be told "if "you do this activity "then" you will get this for doing what you were asked to do. Pictures paired with words can be put on the "if"/"then" card if the student is non-verbal and uses pictures to communicate. Visual "if/then" cards offer a visual way to

explain the task and the reward (Cooper-Duffy et al., 2010). Students with significant disabilities require the use of positive feedback that can take on many different forms. It is the teacher's responsibility to work diligently to identify the student's motivators and use them to enhance the learning environment and work the student performs in the classroom.

**Providing explicit vocabulary instruction and using methods of systematic instruction.** All students benefit from the knowledge gained from understanding what a word means. For students that are non-verbal and have severe learning disabilities, vocabulary development is a key component of their instructional program (Knight et al., 2010). This student population should be presented with no more than five words at a time and the vocabulary words should be relevant or of interest to the student (Lawson et al., 2012). Relevance might mean that the word is part of text that is being used in the classroom, text that can be accessed in the community, text specific to the interest of the student, or text that specific to a task or activity (Knight et al., 2010). It is important for this student population to understand what the words mean and how these words are used in meaningful or functional text. The students must demonstrate comprehension of the new vocabulary word for it to becoming meaningful and useful to the student. The addition of new vocabulary assists the student in their ability to participate as valued members of their community. Special Education teachers work very hard to assist their students in demonstrating comprehension of vocabulary in many different ways.

One research-based method of improving student achievement for students with significant disabilities is using a procedure called time delay. This instructional strategy

is frequently employed when teachers teach sight word vocabulary to students with disabilities (Riggs & Collins, 2013). Time delay includes presenting a target stimulus, delivering a task direction, and waiting for a specific length of time for the student to respond (Riggs & Collins, 2013). When a teacher uses time delay, the first trial has zero delay. The target stimulus and prompt occur at the same time. In future trails, the teacher inserts a gradual increase in the time delay to model the correct answer for the student. The teacher works to determine the consistent amount of time delay that should be used for the student to anticipate the correct answer (Knight et al., 2010). Furthermore, the procedure of time delay insures the student has the necessary support and prompts to ensure he or she is able to be successful (Riggs & Collins, 2013). Students with significant disabilities must be provided with a model and enough time for them to provide an answer to a question. Time delay is a procedure that provides this student population with the supports and procedures necessary to be successful while participating in literacy instruction activities. Teachers of students with significant disabilities employ multiple teaching strategies to aid students in demonstrating comprehension of what they are being read or the activity they are completing in the classroom.

Another method of systematic instruction involves the teacher's use of augmenting the text that is presented to the student. When providing text to students with significant disabilities, it is important that the text is age appropriate (Hudson et al., 2013). Augmenting the text means that the teacher adds pictures, objects, text summaries, and other illustrations that might help the student better understand what is being conveyed

(Hudson et al., 2013). Teachers might also need to rewrite the text being presented at a lower reading level or even to reduce the number of words on the page (Hudson et al., 2013). One of the most important aspects of literacy instruction is determining whether or not the student can demonstrate comprehension of the material being presented to him or her (Hudson et al., 2013). It is important for the teacher to provide multiple response options for the student based on his or her communication modality. If a student is just beginning to understand and use objects to respond, the teacher should use objects with that student. However, if the student is able to respond using pictures paired with words or words alone, the teacher should use these methods of having the students respond to various story related comprehension questions. In addition, if the student uses augmentative communication equipment, the teacher should program the appropriate response options on the communication device so that the student can continue practicing responding to questions with their communication device. The teacher must remember that there is the possibility that each student in the classroom might have a different way to respond to comprehension questions and should ensure that students are able to use the communication strategy that they are most use to using.

One-on-one instruction is method of providing systematic instruction to students with significant disabilities. In a one-on-one instructional scenario, the student and one instructional staff member work with only the one student (McKie et al., 2012). One-on-one instruction provides the teacher an opportunity to work with the student alone and utilize instructional strategies that have been proven effective with that student (McKie et al., 2012). Book readings are an effective use of one-on-one instructional techniques.

However, it is important to note that the teacher should also provide opportunities by which the entire class participates in whole group instruction so that the students can practice participating in a group and using socially acceptable means to interact while in a group situation (Cooper-Duffy et al., 2010). One-on-one instruction is effective when a teacher needs to differentiate the instructional strategies employed to an individual student based on the complexities of his or her disabilities. In addition, the teacher is able to work to identify and better understand any learning obstacles that may be occurring during the instructional period where one-on-one instruction is being used. The one-on-one learning strategy is employed as an effort to ensure success of a student during the instructional process.

**Incorporating technology into the lesson presentation.** It is important for educators to have the attention and interest of their students when they are presented lessons. When taking the alternate assessment, it is important for the teacher to remember that technology that is utilized inside the classroom as a routine part of the delivered instruction to a student may be used with the student when taking the alternate achievement assessment (Zebehazy et al., 2012). In today's society, technology plays a pivotal role in how individuals interact in their world (Carnahan et al., 2012). Teachers can use technology to make the text or books in their classrooms more appealing (Carnahan et al., 2012) . Teachers can make their own books using available technology, make PowerPoint books, or even use pre-made books that are available online (Carnahan et al., 2012). Teachers must make the delivery of literacy instruction meaningful, yet fun to the students so they will want to remain engaged (Whitby et al., 2012). Classroom

technology, such as an interactive whiteboard, provides a means by which the students' attention is maximized (Whitby et al., 2012). In addition, the students that require augmentative means of communication can use this available technology to communicate and respond during classroom lessons (Whitby et al., 2012). Technology is available to teachers to help them improve the instructional delivery process while maximizing the interest of the student in the lesson content. The use of a whiteboard in a classroom, for example, can make learning interesting and so much fun. Technology is one of the key advances in lesson delivery that teachers can employ to increase student achievement in their classrooms.

**Using assessment to drive the instructional process.** Teachers must be able to determine if students are acquiring the information that is being presented during each lesson. In addition, it is the goal of the educational process that students should be able to generalize the knowledge gained through each lesson to solve real world problems or tasks (Imray & Hinchcliffe, 2012). It is important to understand that students with significant disabilities have extreme difficulties generalizing lesson content (Imray & Hinchcliffe, 2012). Thus, teachers of students with disabilities work to assess and understand the modified material that students with severe disabilities are able to learn and demonstrate an understanding (Imray & Hinchcliffe, 2012). Various forms of assessment should be employed for a teacher to determine lesson content mastery of their students (Cooper-Duffy et al., 2010). According to Cooper-Duffy, et al. (2010), assessment can take many different forms. These forms include:

- A checklist can be used to determine if a student participated or completed the requirements of a lesson and/or its related activity.
- A data sheet can be used to track a frequency count of the student's ability to identify a certain object or objects.
- An augmented assessment can be used by the student to answer questions related to the lesson or activity.

It is important for the teacher to check for understanding frequently and if necessary regroup and reteach necessary lesson elements or concepts (Cooper-Duffy et al., 2010). Assessment provides the necessary feedback to the teacher so that he or she knows whether or not the students are grasping the lesson content or if other instructional strategies should be implemented to aid the students in learning the necessary information. The data obtained from assessment helps the teacher understand the progress (or in some cases the non-progress) of students in his or her classroom. This data can help the teacher determine what instructional strategies (e.g., student groupings, lesson content, technology) to employ to ensure all student gain an understanding of lesson content. Through the use of assessment, teachers are able to make decisions regarding the content mastery of lesson materials and then what follow-up activities or strategies to be used in the classroom so that each student in the class obtains mastery of each lesson's objectives.

**Utilizing para-educators effectively throughout the instructional process.** Para-educators, sometimes called educational assistants, assist the teacher in accomplishing instructional goals and works hand-in-hand with the teacher to increase student

achievement in their classroom. The exceptional student education teacher must maintain effective communication with his or her para-educator. This communication is the means by which classroom goals, instructional methods, and student specific strategies are discussed and implemented (Carnahan et al., 2012). The classroom teacher must provide on-going training on instructional strategies, data collection methods, and instructional delivery methods so the para-educator and the teacher demonstrate a shared philosophy on student achievement (Carnahan et al., 2012). The para-educator is an instrumental member of the ESE classroom. This person is able to work with one student or students while the teacher is working with others. A para-educator helps the teacher maximize the instructional delivery time with each student in the classroom. An exceptional student education classroom would not be effective or successful without the assistance of para-educators. They are vital to the on-going student learning gains that occur with this student population.

**Recommendation 2: Teacher collaboration increases the quality of the lessons that are ultimately delivered to students and builds community among grade level colleagues.**

Highly effective teachers understand the importance of continuously improving their teaching skills and pedagogy. One method by which teachers enhance their teaching skills is by collaborating with their grade level coworkers. It is important for teachers to collaborate with their grade-level peers as well as other resource teachers available on the school campus, including the school librarian (Wilson, 2012). Grade level colleagues are able to share ideas and enhance the lesson related activities that focus on various grade

level standards (Wilson, 2012). By including other resource teachers, such as the librarian, in the collaborative process, teachers are able to enhance the quality and content of the lesson (Wilson, 2012). For example, the librarian is able to suggest various technology tools or other supplemental materials that relate directly to the lesson plan content and its standards (Wilson, 2012). Teachers who collaborate build strong professional relationships with their colleagues and other team members on the campus. Teachers understand that collaboration is one of the most research-based activities that enhances student learning. The collaborative process involves drawing on multiple individuals' education and experience to create the most effective lesson for the student. Collaborative planning as well as other research-based professional development activities that promote collaborative planning help teachers improve their pedagogy.

Lesson study is a professional development activity through which teacher participation improves student learning. Lesson Study originated in Japan and provides a model for viable professional development in any type of school, including an ESE Center School (Doig & Groves, 2011). Lesson Study is a teacher-led professional development activity that is facilitated by a trained teacher-facilitator (Doig & Groves, 2011). Administrators are not participants in the Lesson Study process (Doig & Groves, 2011). Lesson Study has four distinct phases. These phases are: (1) goal-setting and planning; (2) teaching the research lesson; (3) the post lesson discussion; and (4) the consolidation of learning that took place during the study (Doig & Groves, 2011). A summary, according to Doig & Groves (2011), of the events that takes place during each phase is provided in the chart below.

Table 6

*Lesson Study Cycle Events*

| Phase | Summary of Phase Events |
|---|---|
| Goal-setting and planning | ▪ Determine what is the goal/objective of the lesson<br>▪ Establish the intended student outcome(s)<br>▪ Develop the lesson plan<br>▪ Practice teaching the lesson<br>▪ Learn the data collection processes<br>▪ Determine the classroom the lesson will be presented<br>▪ Select teacher that will be teaching the research lesson<br>▪ Assign teachers specific students they will observe and take data |
| Teaching the research lesson | ▪ Teach the lesson plan in the selected classroom<br>▪ Take data by teacher observers that will be analyzed during the post lesson discussion<br>▪ Focus is always on the student and his/her behavior during the lesson |
| Post lesson discussion | ▪ Meet to discuss and analyze the data collected during the teaching of the research lesson<br>▪ Discuss the implications of data analysis and its findings |
| Consolidation of learning | ▪ Reflect on the strategies that were effective and ineffective during the lesson<br>▪ Discuss if students mastered the intended student outcome(s) of the lesson<br>▪ Develop a *Qualities of a Good Lesson* document that becomes a document that is reviewed and modified at the end of each Lesson Study Cycle of the grade level teachers |

Source: Doig, B., & Groves, S. (2011). Japanese Lesson Study: Teacher professional development through communities of inquiry. *Mathematics Teacher Education and Development, 13*(1), 77-93.

The activities involved in the Lesson Study Cycle are a systematic process by which teachers work to build their efficacy and demonstrate their dedication to being life-long learners. The implementation of Lesson Study at a school requires an on-going commitment to this professional development activity. As a result, Lesson Study has multiple benefits for both the teacher and students. The teacher benefits by improving his or her teaching skills while the students benefit through the delivery of a lesson which utilizes known effective practices that were proven through a recent Lesson Study Cycle.

Often, Lesson Study is completed as part of a Professional Learning Community. A professional learning community is a group of grade-level or subject specific teachers who meet with the objective of creating lesson plans that improve student achievement (Hunter & Back, 2011). These teachers met with a specific goal in mind (Hunter & Back, 2011). For example, the teachers may be working toward the fulfillment of a school-wide improvement goal. Teachers see the process of Lesson Study as an opportunity to work with other teachers that they might not normally get to collaborate. This cooperative work increased their knowledge of the topic, overall faculty teamwork, its teaching, and the method by which the students interacted with the lesson (Hunter & Back, 2011). Lesson Study is the catalyst by which teachers can improve their practice of teaching and focus on the overall performance of the students in their classrooms. The Lesson Study Cycle promotes a safe environment by which ideas can be shared in a safe and valued community. The opinions of all the teacher participants matter.

Lesson Study can be used to focus instructional efforts on struggling students through the context of the response-to-intervention (RTI) approach to serve these students. The purpose of the RTI approach is:

- Students with disabilities and other struggling learners can benefit from high-quality scientific-based instruction.
- Teachers should continuously take data on these struggling students to determine their response to the intervention being delivered to them (Benedict et al., 2013).

The RTI framework is delivered in three tiers. The first tier is the general education or core instructional setting. Students who struggle in tier one receive instruction in tier two. Tier two, the more intensive setting, small group, is provided in the general education setting. If tier two supports are not sufficient, these students receive tier three supports. In tier three, which is referred to as the most intensive setting, might include one-on-one instruction (Benedict et al., 2013). The RTI framework is required to provide additional supports for struggling students to be successful in the general education environment and related coursework. Teachers must do everything possible to increase student achievement in their classroom. Lesson Study is a collaborative community where teachers can meet and can focus specifically on improving the achievement of these struggling students.

Lesson Study is a teacher led professional development activity that works to increase student achievement. All participants, including the facilitator, of Lesson Study are provided a natural environment by which they can update their teaching knowledge (Lewis et al., 2011). Lesson Study is intensive, on-going, research-based,

and fosters collaborative working relationships with the participating teachers (Chong & Kong, 2012). Moreover, the fact that teachers work collaboratively with other teachers increases their self-efficacy (Chong & Kong, 2012). At the end of the Lesson Study Cycle, teachers are able to critically reflect on the strengths and weaknesses of the lesson and the learning strategies that were employed during the research lesson (Lewis et al., 2011). As a result of the teacher's increased teaching knowledge and self-efficacy, student achievement is improved (Chong & Kong, 2012). It is important for teachers to continuously improve their teaching practices and strategies that are employed in the classroom. Lesson study is a vehicle by which teachers can use to help them be lifelong learners.

**Recommendation 3: Students are more engaged in the lesson if authentic hands-on experiences are used to reinforce key concepts or learning standards of the lesson.**

All students learn differently. One way a teacher can meet the individualized learning needs of students is to differentiate the instruction by identifying and tailoring instruction based on the preferred learning style of the students in their classroom (Landrum & McDuffie, 2010). It is important to understand the difference between individualized instruction and differentiated instruction. Individualized instruction means that instruction is delivered one-on-one, to a small group of students, or even in a whole group situation (Landrum & McDuffie, 2010). Whereas, differentiated instruction is the recent response of including students with special education and individualizing these special educations students' lessons within the general education classroom (Landrum & McDuffie, 2010). For decades teachers have worked to apply the Multiple Intelligences

educational theory of Howard Gardner into their classrooms. Teachers have learned that they must create lessons that meet the individual needs of the students in their classrooms to increase student achievement. By individualizing the learning experience and knowing the student's preferred learning style, the teacher is able to engage the student in the lesson and increase the opportunity for the student to master the lesson objective(s).

Teachers of students with significant disabilities must overcome additional obstacles in the delivery of instruction to this student population. Teachers have to seek out teaching methods to help students remain focused on the task or activity (Thompson, 2011). One method by which to assist students with significant disabilities remain focus is to integrate sensory experiences within the lesson presentation (Thompson, 2011). According to Thompson (2011), sensory integration is defined as "a neurobiological process that organizes the sensation from one's own body and from the environment and makes it possible to use the body effectively within the environment." The teacher of students with significant disabilities must know and understand students that have a sensory impairment and work to individualize the lesson presentation for that student by incorporating the appropriate sensory inputs (Thompson, 2011). Meeting the individualized needs of each student in a special education classroom comprised of students with significant disabilities offers many distinctive challenges to the teacher. The teacher must utilize research-based teaching methods, an understanding of the student's individual learning needs and preferences, and knowledge of the student's individual disabilities to develop an effective means by which lessons are delivered to the student.

Hands-on activities help to enhance the learning experience and understanding of lesson content for students, especially those with significant disabilities. Hands-on experiences is a teaching strategy that is employed by teachers in which students work in groups or individually, manipulate various objects, ask questions that focus the observation or activity, and collect data on the performance of the student (Satterthwait, 2010). When working with this student population, teachers often find it hard to obtain and maintain the attention of the students (Holstermann et al., 2010). Children view these activities as a playful activity (Guha, 2012). Hands-on activities, if implemented in a structured and methodical way, can be used to obtain and maintain the interest of students. As with any instructional activity, hands-on activities need to have a purpose, clearly defined instructions for completion, and assessment to determine if the activity's purpose was met (Holstermann et al., 2010). Teachers engage students in hands-on activities as a mean to enhance the lesson content and meet the individual needs of the student. Teachers find that these hands on activities can be fun and help to gain the attention of the students in demonstrating mastery of the lesson objective(s). Hands-on activities are a useful strategy for increasing student achievement.

**Formative Program Evaluation.**

This doctoral study employed the techniques of a formative program evaluation. In a formative program evaluation, the intent is to validate or ensure that the goals of the instruction are being achieved and to improve the instruction, if necessary, by means of identification and subsequent recommendations for improvement (Patton, 2015). "Program evaluation is the systematic collection of information about the activities,

characteristics, and results of programs to make judgments about the program, improve, or further develop program effectiveness, inform decisions about future programming, and/or increase understanding (Patton, 2015, pg. 178). It was the intent of my study to identify the effectiveness of using the teacher-developed supplemental reading plans through the gathering of data and presenting that information to school administration so that future use of the lesson plans could be determined. However, during the planning of this study, it became evident that I needed additional flexibility to implement and gather data on this unique student population. As a result, I followed the specialized techniques that are implemented through a responsive program evaluation.

**Responsive Program Evaluation.**

An alternative form of formative program evaluation is called Responsive evaluation. Responsive evaluation is a program evaluation approach that is less stringent on measurement components in the evaluation in order to provide assistance through its findings to help increase its usefulness to persons who are directly related to the program being evaluated (Stake, 2011). Responsive evaluation emphasizes (1) statement of goals, (2) use of objective tests, (3) standards held by program personnel, and (4) research-type reports (Stake, 2011). In addition, formal communication is not as prescribed as in other evaluation methods (Stake, 2011). In this form of program evaluation, natural communication is emphasized (Stake, 2011). Observations and reactions are also key components (Stake, 2011). Responsive evaluation has become a useful evaluation tool used in the education field to evaluate instructional programs. My study adhered to the procedural methods of responsive evaluation during the completion of this doctoral study.

There are specific criteria by which an educational evaluation can be a responsive evaluation. These criteria are:

- The evaluation must orient itself more directly to program activities than to program intents.
- The evaluation must respond to audience requirements for information.
- The evaluation's various fundamental stakeholders are referred to in reporting the success and failure of the program (Stake, 2011).

In my study, the lesson plans and their components were fundamental to my study. In addition, throughout my study, I involved the fundamental stakeholders (e.g., teachers, parents, and principal). Finally, my program evaluation report makes reference to these individuals. Responsive evaluation is a way by which the evaluator can focus on observations and reacts from key participants and less on the structure of the evaluation. In a Responsive evaluation, the word "issue" is used instead of objectives, hypotheses, or research questions (Stake, 2011). According to Stake (2011), the word issue "reflects a sense of complexity, immediacy, and valuing." Moreover, the structure of the Responsive evaluation is based on the program being evaluated and the individuals who are involved. As a result, Responsive evaluation is being used more and more in education.

There are many roles that the evaluator must complete in a Responsive evaluation. These roles, according to Stake (2011), are identified in the table below.

Table 7

*Roles of the Responsive Evaluator*

| Role | Description of Role/Responsibility |
|---|---|
| Plans the observations | The evaluator has to determine the context by which observations will take place and create a plan for when these observations will take place. |
| Arranges observers to observe program | The evaluator schedules and confirms other people to observe the program that is being evaluated. |
| Prepares evaluation documents | The evaluator gathers notes from observers taken during observations and prepares for brief narrative portrayals and determines the format by which the data will be shared with key authority figures involved in the study. |
| Gathers expressions / thoughts / reactions from key program participants | The evaluator communicates with and gathers thoughts, expressions, and reactions of key individuals involved in the program. Often, this is done informally and keeping a record of these interactions after they occur. |
| Checks for accuracy of data gathered | The evaluator always checks the accuracy of the information he/she has gathered and ensures that it is high quality information. |
| Communicates with audience | The evaluator is responsible for keeping in contact with his/her audience. The evaluator has to choose the most convenient method by which to communicate. Sometimes, this might be by email, report, or presentation. He/she wants to keep in contact with his/her audience/participants. |

These are all roles that I completed as part of my doctoral study. The main objectives throughout a Responsive evaluation are to base the evaluation on observations of what people do naturally and how individuals react while interacting with the program. It is important to note that there is flexibility in the protocols used during a Responsive evaluation. This flexibility is needed so that the evaluator can respond to emerging issues, preconceived ideas, and program participants (Stake, 2011). The field of education

requires teachers to analyze how students interact or react to the delivery of lessons, thus, the Responsive evaluation is a beneficial tool to evaluate such instructional program.

In summary, it is important to keep in mind that during a Responsive evaluation there are key milestones that take place. These milestones, according to Stake (2011) include:

1. Talking with clients, program staff, and audiences.
2. Identifying the program scope.
3. Compiling an overview of program activities.
4. Discovering the purposes or concerns of the program being evaluated.
5. Conceptualizing issues and problems.
6. Identifying data needs in regards to the issues.
7. Selecting observers, judges, and data collection instruments (if needed).
8. Observing designated antecedents, transactions, and outcomes.
9. Determining themes, preparing portrayals, informal reports, and case studies.
10. Validating, confirming, and attempting to disconfirm collected data.
11. Determining program communication format and delivery method.
12. Creating and preparing for distribution the formal report (if needed).

An evaluator must understand that unlike other program evaluation methods and protocols, the methods used in Responsive evaluation is much less stringent and allows the evaluator to add richness to the evaluation through frequent interaction with program participants and multiple program observations.

## Conclusion

This formative program evaluation regarding the elementary grade-level teacher-written supplemental reading lesson plans provided the school with valuable information about the effectiveness of using these lesson plans. The completion and reporting of the quantitative and qualitative elements of the evaluation identified the overall performance of the plans related to the student scores on the alternate assessment as well as the overall perceptions of each stakeholder group (e.g., parent, teacher, and principal). The administration can use this information to make an informed decision regarding how these plans will be utilized in the future at the school.

Included in this section are the reflections and conclusions generated from the project study. A scholarly assessment of project strengths and limitations, as well as self-evaluation and assessment of the process is presented. This section ends with a discussion and evaluation of the project's potential impact on social change and implications for future research.

## Recommendations for Further Study

The first recommendation for further study would be to evaluate the enhancements made to the reading lessons through the lesson study process. The main deliverable through the lesson study process is a "Qualities of a Good Lesson" document. This document identifies those strategies that are deemed effective through the data collection and analysis phases of lesson study and thus implemented in a classroom environment (Lewis, Perry, Foster, Hurd, & Fisher, 2011). Does student achievement improve? Did the alternate achievement statewide assessment scores improve? The need

for continued enhancement of lessons differentiated for students with significant disabilities is identified throughout this project study.

Secondly, the need for specific research on how teachers of significant cognitive disabilities can effective collaborate needs to be considered. These teachers teach a very specific and unique population of students that require a wide variety of knowledge. Are there better ways to collaborate other than traditional methods such as Professional Learning Communities (PLC)? Would teachers benefit from collaborating with teachers outside their school who teach the same population? Would there be opportunities for teachers to utilize technology to collaborate effectively? It is important for teachers to collaborate in an effort to increase their students' achievement.

Thirdly, students with significant disabilities often have communication issues. Many of them are totally non-verbal students. As a result, teachers must teach these how to effectively communicate their wants, needs, and to respond to questions. Most often, teachers employ augmentative strategies to give these non-verbal students a "voice." There needs to be specific research on how communication skills impacts academic achievement and ultimately achievement on standardized and statewide assessment programs. What augmentative systems are most effective? Individuals must have the ability to communicate in order to live happy and fulfilling lives.

## Summary

As I reflect on this doctoral journey, I now know that it has prepared me for my work as a scholar. I have benefited from the doctoral coursework, doctoral study

processes, and Walden resources (such as the Walden Library, Writing Center, and my doctoral study members). During each phase of this journey, I have modeled my dedication as a lifelong learner. My current chair has helped me better understand the specific requirements of each section of this doctoral study. As I continue to progress in the educational field, I will reflect on this experience and strive to meet the challenges and successes that lie ahead in my life.

As a career changer, I had just three years of experience as a teacher when I began this journey. The classwork during the coursework phase of this program as well as the extensive literature reviews that were conducted as part of the requirements of this doctoral study helped to enhance my knowledge of the very important work Exceptional Student Education Teachers do each day inside the classroom, in particular, those teachers of students with significant disabilities. This project seemed the next logical step in what I was doing as part of my career. At the time I began this program, I was placed in a facilitator role where a large majority of my job was mentoring teachers and facilitating various professional development activities for teachers. This position allowed me the opportunity to build professional working relationships with the faculty and administration at my school. Understanding and supporting teachers was a role that I enjoyed and saw the impact my work had on the students in the classroom.

Coming from the business world, I was able to use this background as I built various aspects of this project. I had good background knowledge of the use of word processing and spreadsheet programs and used this knowledge to complete my various classroom assignments. In addition, when I began my doctoral study, I used my

experience as a project manager and human resource manager to plan and project and resolve various challenges and conflicts that occurred during this journey. I realize that in education there is much information needed in order to make an informed decision. This information includes applicable scholarly research as well as an analysis of the applicable student data. Then, the various decision makers can make an informed decision.

Throughout this doctoral journey, I had changes in my thinking. First, I had to develop good scholarly research skills in an effort to support my opinions and viewpoints that were part of the classroom assignments. I could not simply state something without providing a documented resource for that statement. Next, I had to realize that the analysis of data could not be done in separation from having a keen understanding of elements of the data and knowledge of the problem. Finally, I realized how important communication skills are in our society. It was evident that I was now a collaborator with teachers at my school, parents, college classmates, professors, and other individuals within the Walden support staff. I had the opportunity to utilize the human resource skills that I had obtained and apply them to the world of education which requires constant, frequent, and immediate feedback.

It has been my effort throughout this journey to bring a keen awareness to the unique student population that I have the privilege of serving each day. More importantly, I wanted our administration to have a well-executed program evaluation by which they could determine the effectiveness of the elementary supplemental reading lessons. However, most importantly, as I began to analyze the data, I began to see that this student population may not be able to portray learning gains through a single

statewide alternate assessment, however, when data is gathered from the various stakeholders (parents, teachers, and principal), it became evident that these lessons were effective in certain ways to each stakeholder group. Each group did point out improvements that needed to be made but it became evident that the students participating did make gains through the use of these lesson plans. These gains might not have been evident when only viewing the statewide assessment. However, there were other gains such as the student now allowing their parents to read them a story at night, participating in a hands-on activity, or being able to respond to a question asked by a parent or teacher. These are improvements for these students. These improvements enhance the quality of life for these students, their parents, teachers, and school administration. I want to summarize this doctoral study with the following sentence. **ALL** students **CAN LEARN** (no matter the intensity of a disability) when provided the appropriate supports and educational environment.

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Appendix A: Teacher Survey

# Supplemental Lesson Plans Survey

Elementary Teachers

## *Elementary Teachers, your input is very important!*

**Directions:** Please take a few minutes to read and complete this Supplemental Lesson Plan Survey for the supplemental Reading/Language Arts lesson plans that are being used in the elementary grade cluster (K-5). Your input will be used as part of a doctoral study. Your responses are confidential – so please do not put your name on the survey. ***Thank you for completing this survey!***

## Section 1: *Rated Questions*

**Directions:** Using the scale below, please respond by placing your rating beside each question.

### *Rating Scale*

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| *Strong Disagree* | | *Agree* | | *Strongly Agree* |

### PLEASE ANSWER THE FOLLOWING QUESTIONS (using the rating scale above)

_____ The lesson plans are standards-based using the Florida Access Points (alternate achievement standards).

_____ The lessons were helpful for my students to gain an understanding of the required content.

_____ I had to make modifications before implementing the lesson plans in my classroom.

_____ It was beneficial for my students to have a content related hands-on-activity to accompany each of the lessons.

_____ Many of my students are kinesthetic learners.

_____ Student learning gains were a product of using these lesson plans.

_____ Using essential questions to state lesson objectives help me focus my lesson content.

_____ I think changes to the lesson plans need to be made.

_____ It was helpful for me to create these lesson plans in collaboration with my grade-level colleagues.

# Supplemental Lesson Plans Survey

## Elementary Teachers

### Section 2: *Open-Ended Questions*

**Directions:** Please read each question carefully and write your response in the space provided. These questions are based on the use of the supplemental Reading/Language Arts lesson plans that are currently being used in grades K-5 at the participating school.

i. *If you could make changes to these supplemental lesson plans, what improvements would you make? Please be specific.*

ii. *Do you feel that changes are needed to the supplemental reading lesson plans? If so, what are the changes needed?*

iii. *On average, how much time did you spend on the supplemental reading lesson plans each week (this can include gathering materials, modifying our plans, etc.)? Do you feel that this was the appropriate amount of time to spend, too little time to spend, or too much time to spend on lesson plans? Why or why not?*

iv. *Did you find these lesson plans beneficial for your students in mastering the lesson objective(s)? Why or why not?*

v. *Would you recommend the continued use of these supplemental reading lesson plans at Karen M. Siegel Academy? Why or why not?*

Appendix B: Parent Survey

# Parent Survey

Elementary Parents/Guardians of Students

## *Parents/Guardians, your input is very important!*

**Directions:** Please take a few minutes to read and complete this Parent Survey for the supplemental lesson and related hands-on-activities that are being used in the elementary grades K-5 at the participating school. Your input will be used as part of a doctoral study. Your responses are confidential – so please do not put your name on the survey. ***Thank you for completing this survey!***

## Section 1: *Rated Questions*

**Directions:** Using the scale below, please respond by placing your rating beside each question.

## *Rating Scale*

| **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|
| *Strong Disagree* | | *Agree* | | *Strongly Agree* |

### PLEASE ANSWER THE FOLLOWING QUESTIONS (using the rating scale above)

_____ The lesson plans are standards-based using the Florida Access Points (alternate achievement standards).

_____ The lessons were helpful for my child to gain an understanding of the required content.

_____ It was beneficial for my child to have a content related

hands-on-activity to accompany each of the lessons.

_____ My child likes to complete physical activities.

_____ My student improved his/her performance on the Florida Alternate Assessment between grades 3 and 4 and/or grade 4 and 5.

_____ As a parent, I think changes to the lesson plans need to be made.

_____ It was helpful for me to see the activities my child completed during Reading/Language Arts while he/she was at school.

# Parent Survey

Elementary Parents/Guardians of Students

## Section 2: *Open-Ended Questions*

**Directions:** Please read each question carefully and write your response in the space provided. These questions are based on the use of the supplemental reading program that is currently being used in grades K-5 at the participating school.

i. *If you could make recommend changes to these lessons as a parent, what changes would you want to suggest to your child's teacher? Please be specific.*

ii. *Did you receive any of your child's work to see what hands-on-activities accompanied these Reading/Language Arts lessons? If so, what did you like or dislike about it?*

iii. *Were you able to continue the work of your child's teacher at home when you knew what the teacher was teaching in the classroom? If so, how?*

iv. *Do you think it is helpful for your child to participate in physical activities related to a lesson taught by the teacher or would you prefer your child to complete a worksheet type assignment?*

Appendix C: Principal Survey

# Supplemental Lesson Plans Survey

## *Principal, your input is very important!*

**Directions:** Please take a few minutes to read and complete this Supplemental Lesson Plan Survey for the supplemental Reading/Language Arts lesson plans that are being used in the elementary grade cluster (K-5). Your input will be used as part of a doctoral study. Your responses are confidential – so please do not put your name on the survey. ***Thank you for completing this survey!***

## Section 1: *Rated Questions*

**Directions:** Using the scale below, please respond by placing your rating beside each question.

### *Rating Scale*

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| *Strong Disagree* | | *Agree* | | *Strongly Agree* |

### PLEASE ANSWER THE FOLLOWING QUESTIONS (using the rating scale above)

_____ The lesson plans are standards-based using the Florida Access Points (alternate achievement standards).

_____ The lessons were helpful for students to gain an understanding of the required lesson content.

_____ Teachers had to make modifications before implementing the lesson plans in their classroom.

_____ It was beneficial for my students to have a content related hands-on-activity to accompany each of the lessons.

_____ Many of the students at my school have a kinesthetic learning preference.

_____ Student learning gains were a product of using these lesson plans.

_____ Using essential questions to state lesson objectives help teachers focus lesson content.

_____ I think changes to the lesson plans need to be made.

_____ It was helpful for teachers to create these lesson plans in collaboration with their grade-level colleagues.

# Supplemental Lesson Plans Survey

## Section 2: *Open-Ended Questions*

**Directions:** Please read each question carefully and write your response in the space provided. These questions are based on the use of the supplemental Reading/Language Arts lesson plans that are currently being used in grades K-5 at the participating school.

1. *If you could make changes to these supplemental Reading/Language Arts lesson plans, what improvements would you want to make? Please be specific.*

2. *Do you think it was a good allocation of time and resources for teachers in the elementary (grade K-5) grade cluster to develop these supplemental reading lessons during their Professional Learning Community (PLC)? Why or why not?*

3. *Do you feel it was necessary for teachers to modify the existing written lesson plans? Why or why not? If so, how long do you think it should take them to make these modifications?*

4. *Did you find these lesson plans beneficial for your students in mastering or being exposed to the lesson objective(s)? Why or why not?*

5. *Would you recommend the continued use of these supplemental reading lesson plans at the participating school? Why or why not?*

# Appendix D: Classroom Observation Protocols

The **classroom observation** protocols were as follows:

- Identify the topic of the reading lesson
- Identify the teaching strategies being employed
- Identify the communication strategies being used
- Identify the hands-on activity being completed
- Identify the adult staff present during lesson presentation
- Identify how the educational assistants were being used during the lesson