1-1-2008

Intrinsic motivation of students with disabilities in the general education setting: What teachers should know and be able to do

Beverly Stinson Faircloth
Walden University

Walden University

COLLEGE OF EDUCATION

This is to certify that the doctoral study by

Beverly Stinson Faircloth

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Nathan Long, Committee Chairperson, Education Faculty
Dr. Rebecca Watts, Committee Member, Education Faculty

Chief Academic Officer

Denise DeZolt, Ph.D.

Walden University
2008

ABSTRACT

Intrinsic Motivation of Students With Disabilities in the General Education Setting: What Teachers Should Know and Be Able to Do

by

Beverly Stinson Faircloth

M.A., Central Michigan University, 2002
B.S., University of Georgia, 1983

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

Walden University
November 2008

ABSTRACT

The Individuals with Disabilities Act (IDEA) requires that students with disabilities (SWD) be educated in the least restrictive environment, while the No Child Left Behind Act (NCLB) requires that these students meet minimum criteria on statewide testing by 2014. This sequential explanatory mixed methods action research study, situated in Bandura's self-efficacy and Atkinson's drive theories, examined the effects of teacher training and subsequent implementation of strategies on the intrinsic motivation of SWD. Intrinsic motivation was measured using the Children's Academic Intrinsic Motivation Inventory (CAIMI) before and after the training. A repeated measures *t*-test analyzed the mean difference in the students' responses to determine whether teacher training and subsequent implementation of motivational strategies had a significant effect on the intrinsic motivation of SWD in the general education classroom. Mean scores on the pre and post administrations of the CAIMI were not statistically different, $t(13) = 1.426$, $p = .177$. A focus group interview with the students' teachers provided data, which helped ascertain how teachers perceived the relationship between teacher training in motivational intervention strategies and teacher practice and levels of intrinsic motivation for 14 SWD in inclusive classrooms. Typological analysis revealed teachers perceived a relationship between the training, their practice, and intrinsic motivation of SWD. Finally, qualitative responses were compared to responses on individual CAIMI items to explain inconsistencies between expected outcomes, actual results, and theory. Implications for positive social change are evidenced by the data that demonstrate a better understanding of motivation for SWD for educators and administrators seeking ways to merge requirements for NCLB with IDEA.

Intrinsic Motivation of Students With Disabilities in the General Education Setting: What Teachers Should Know and Be Able to Do

by

Beverly Stinson Faircloth

M.A., Central Michigan University, 2002
B.S., University of Georgia, 1983

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Education

Walden University
November 2008

DEDICATION

This work is dedicated to my family.

Rick, you supported me emotionally throughout the entire grueling process. You have always seen the best in me and you think more highly of me than you ought. Thank you for refusing to come to my pity parties and for loving me in spite of myself.

Derek and Lauren, you two have inspired me since before I laid eyes on you. Never forget that mediocrity is not an option for you (Colossians 3:23). I am already so proud of both of you that at times I can hardly stand it. Continue to strive for excellence in all that you do.

The support of my parents, Jimmy and Delores Stinson, has never wavered. They have always expected my best and convinced me that I could do “anything I set my mind to.”

Daddy, it was you who planted the idea to pursue my doctorate as we sat waiting for the curtain to rise at a dance recital. Mama, you were ever the encourager and prayed me through the rough patches. I am so very blessed to be your daughter.

I love you all!

ACKNOWLEDGMENTS

It has been said that a dream is nothing more than a goal with a deadline. I have found this to be true. There are so many who helped to nudge me toward the deadlines and my dream when I thought there was no end in sight.

My committee has been a tremendous support. Dr. Nathan Long and Dr. Rebecca Watts were just an email or phone call away. They were so knowledgeable and helpful as I waded through the process. They saved this orphaned researcher and I will always be grateful for their attention to detail and encouragement.

Dr. Walts and Mrs. Rafferty were encouraging as always and so helpful in the data gathering phases of the study. Jennifer and Jennifer, thank you for being so willing to assist me when your schedules were already so full.

The study would not have been possible without my colleagues and our students. Their willingness to participate in this project will always be appreciated.

Finally, thank you does not begin to express my appreciation for the support I received from Melanie Spradley and Jami Lee, my friends and fellow doctoral candidates. Their calls, e-mails, reading and rereading of drafts, and hours of counseling kept the dream from becoming a nightmare.

TABLE OF CONTENTS

LIST OF TABLES

SECTION 1: INTRODUCTION TO THE PROBLEM

Introduction and Background

In January 2002, the No Child Left Behind Act (NCLB) of 2001 was passed by congress. Each year since its passage, the drive of educators to find ways to increase the academic achievement of students with disabilities (SWD) has intensified, because every year the percentage of students who must meet minimum grade level expectations rises. In addition, the criterion that delineates minimum expectations is raised. NCLB stipulates that students described as disadvantaged, who historically score lower than their peers, are to be included in this percentage (Handler, 2006, p. 6), and SWD are among the groups NCLB defines as disadvantaged. While NCLB requires educators to ensure the achievement of these struggling students, another important piece of legislation, the Individuals with Disabilities Act (IDEA, 2004), stipulates these same students are to be educated in the least restrictive environment (LRE). This means that they are educated with their general education peers to the greatest extent possible. In other words, each year NCLB requires a higher percentage of these students must perform on or closer to grade level, while at the same time, IDEA requires learning take place with less specialized instruction and in the same setting.

While NCLB (2002) and IDEA (2004) are federally mandated, each state is charged with the responsibility of devising a plan that will bring the state and local districts into compliance by 2014, when all students are expected to “meet state-defined standards of academic performance” (O'Connor & Williams, 2006, p. 2). Georgia has responded to the combined effect of NCLB and IDEA by developing the State

Performance Plan. In 1999, the Georgia Division for Exceptional Students in collaboration with various agencies developed and published Performance Goals for Students with Disabilities. The 10 performance goals evolved into four goals with 16 indicators. Two of these indicators are pivotal to this study. Indicator 9 states that schools should "increase the percentage of time students with disabilities receive instruction in the general education setting with appropriate supports and accommodations" and Indicator 10 requires that schools "increase the performance of students with disabilities on statewide assessments when given appropriate accommodations" (Georgia Department of Education, 2007, p. 1). According to the guidelines set forth in this document, the amount of time SWD spend in the general education classroom, as well as the percentage of these students meeting proficiency on Georgia's Criterion Referenced Competency Test (CRCT), must increase each year.

Meeting the stipulations of NCLB (2002) and IDEA (2004) is a challenge for educators and administrators in the K-12 context (Handler, 2006). Both acts have the same goal – increased student achievement – but changes are required for this goal to be realized. Students who are currently noted as having disabilities were identified for special education testing because they were failing to meet grade level expectations. Once identified as having a disability, these students were provided with an Individualized Education Plan (IEP). These plans address student weaknesses and provide accommodations so students can participate fully in day-to-day assignments as well as on state and district-wide assessments. Accommodations serve to "level the

playing field so that the test measures what a student knows and can do and not the effect of the child's disability" (Cortiella, 2006, p. 14).

In addition to accommodations, IEP committees address setting. Previously the students were placed in smaller settings with teachers trained to deliver specialized instruction. Now however, these same students are being placed back in the general education classrooms and expected to perform up to grade level expectations under the premise that exposure to the rigorous, grade level curriculum will benefit them academically. The reasoning is that, because they are educated in this setting, they will be more likely to score in the "meets expectations" range on state and district-wide assessments (IDEA, 2004, 20 USC 1400-1402, sec 682(5)(a)(i)). However, according to Guisbond and Neill (2007), "Research refutes the assumption that low achieving students are motivated to work harder and learn more in a high-stakes context. On the contrary, low achieving students are most likely to become discouraged and give up in that environment" (p. 14).

NCLB (2002) does not merely suggest all students meet "minimum proficiency on challenging State academic achievement standards and state academic assessments" (20 USC 6301. sec 1001), it requires that they meet the standard. Data from annual statewide assessments are to be used to drive instruction and measure each school's progress. If the school can demonstrate to the state through data that it is making steady, significant progress in academic achievement for all students, the school is said to make Adequate Yearly Progress (AYP). When a school fails to make AYP it is placed on the state's Needs to Improve List. Relegation to this list can mean sanctions, corrective

action, and possible restructuring (NCLB, 2002). NCLB seeks to "close the achievement gap between groups of students that historically perform poorly and their higher performing peers" by including the test scores of subgroups such as SWD (Cortiella, 2006, p. 9). Because NCLB includes SWD in the AYP formula, a disability label can no longer be used as an explanation for the reason a student failed to meet grade level expectations.

As required by IDEA (2004), Individual Education Plan (IEP) teams have increased the rate at which they place SWD in the general education classroom instead of removing the students to a separate setting. The Georgia Department of Education's State Performance Plan for exceptional students dictates an increase in the percentage of "students with disabilities who receive their instruction in the general education setting with appropriate supports and accommodations" (Georgia Department of Education, 2008, p. 1). This percentage increases each year. At the research site SWD are included with their typically achieving peers in the general education classrooms in order to meet the demands of IDEA. Teachers are working to discover ways to help them achieve to satisfy the intent of NCLB and the State Performance Plan.

Motivation is a catalyst for achievement (Atkinson & Feather, 1966). However, according to Deci and Flaste (1995), teachers cannot motivate students; motivation must come from within. If students are not motivated from within, teachers should have a strategy to help. Can teachers affect motivation? This study seeks to determine if teachers can employ specific teaching strategies that will create the environment in which students will become motivated to achieve.

Problem Statement

According to the Georgia Department of Education State Performance Plan (GA DOE SPP), coteaching and inclusion are the service models reserved to meet the needs of SWD in the general education classroom (2008). The coteaching model provides students support from both the special education teacher and the general education teacher. The inclusion model affords the services, often through a paraprofessional and accommodations, before the student is removed from the classroom (GA DOE SPP, Frequently Asked Questions).

The push to have all students, even SWD, master grade level standards has reached an apex at this southeast Georgia school. Administrators, teachers, and support staff are studying all areas of instruction and curriculum carefully. Learning teams meet regularly to analyze student data and work samples. These teams scrutinize formative and summative assessment data and use the information to diagnose and prescribe academic treatments for students who struggle. As required by the school's improvement plan, Georgia Performance Standards (GPS) are unpacked by grade level as well as by subject level teams in an attempt to understand the standards and how best to communicate them to students. Despite great strides in these areas, some students continue to fail according to the school's disaggregated data. A perceived lack of motivation on the part of SWD is one area the professionals have not yet been able to overcome.

It remains a struggle to balance what is best for individual students with the demands of state and federal laws. Research suggests that education in the general classroom is best for students (Peetsma, Vergeer, Roeleveld, & Karsten, 2001; Rea,

McLaughlin, & Walther-Thomas, 2002). Considering students individually, rather than as a statistic to be achieved in order to meet a State Performance Plan indicator, should be the norm. NCLB and IDEA, though different, complement each other in that they both focus on increased student achievement (Handler, 2006). NCLB mandates that this achievement is to be measured through standardized test scores. The problem with this mandate lies in the fact that "standardized test scores offer nothing more than snapshots, often fuzzy ones, of student achievement at a single moment in time" (Guisbond & Neill, 2007, p. 13). Helping each student become motivated to do his or her best, regardless of the setting or the assignment, will serve two purposes. It will assist schools and local school systems in being accountable for student progress. More importantly, it will give students the desire to achieve, an attribute needed to be more successful in any environment.

Inclusion for SWD is here to stay for the immediate future (Georgia Department of Education, 2007; IDEA, 2004). Understanding what drives these students will help this researcher and other educators ensure that these students are successful. More than simply an opportunity for an education, SWD need hope and the belief that they are capable (Saphier, 2005).

> Unfortunately, the way in which the current legislation is being applied in many schools is depriving students of hope. Students who have struggled in the past recognize that the bar is being raised higher and higher and ultimately conclude that school does not offer them a place of success and affirmation. (DuFour, DuFour, Eaker, & Karhanek, 2004, p. 11)

NCLB (2002) and the IDEA (2004), the legislation driving this practice, will not change in the near future, nor will academic content and achievement standards.

However, educators can adapt their practice. This researcher wished to explore if a change in teacher practice will have a positive effect on intrinsic motivation for SWD in the general education classroom. Can educators change their practice in such a way that the student is intrinsically motivated to learn?

A review of the literature verified that much has been written about motivation, academic achievement, and SWD. Literature concerning motivation and the struggling student is available (Daniel & King, 2001; DuFour et al., 2004; Garcia & de Caso, 2004; Grolnick & Ryan, 1990; Linnenbrink & Pintrich, 2003) as is literature arguing the best place for SWD to be served (Fuchs & Fuchs, 1994; Hockenbury, Kauffman, & Hallahan, 2000; Marston, 1996). In addition to the literature addressing motivation and the struggling learner, a small number of research articles examining the relationship between motivational intervention and the intrinsic motivation of SWD was located (Garcia & de Caso, 2004; Linnenbrink & Pintrich, 2003; Margolis & McCabe, 2003; Schunk, 2003).

Several authors have presented suggestions for teacher practice in recent years (Boscolo & Gelati, 2008; Linnenbrink & Pintrich, 2003; Margolis & McCabe, 2003; McCabe, 2006). Still others such as Garcia and de Caso (2004), Schunk (2003), and Kozminsky and Kozminscy (2002) have offered research on the issue. However, there were no articles or research located which specifically addressed the training of teachers to affect the environment of SWD thus increasing intrinsic motivation. The researcher, in conjunction with librarians from Walden University, conducted a search of several databases including ERIC, Education Research Complete, Academic Search Premier, and

SAGE Journals. Key words used in the searches included disabilities, disorders, motivation, self-efficacy, environment, professional development, inclusive schools, and mainstreaming. Through these searchers however, five additional articles were located which added to the understanding of different components of the issue. These articles were summarized in the literature review in section 2 of this study.

This gap in the literature warrants an examination of a possible link between teacher training, teacher practice, and intrinsic motivation of students who struggled in the general education classroom, but who are now expected to achieve in this challenging environment. The theoretical works of Bandura (1986) and Atkinson (Atkinson & Feather, 1966) are similar as both posit the supposition that students will be successful if they believe they are capable of succeeding. The standards nor the law will change, but perhaps the environment can change.

The Individuals with Disabilities Act demands that students with disabilities receive service in the least restrictive environment possible (IDEA, 2004), but the general education setting is only "least restrictive" if students are as motivated, if not more so, to achieve as they would be in a pullout, resource setting. Like all students, students with disabilities should have the opportunity to be educated in the setting most conducive to learning. The aim of this study is to determine if training for general education teachers in specific strategies that are grounded in motivational theory and the subsequent implementation of these strategies can have an impact on student motivation.

Nature of the Study

The sequential explanatory mixed methods study was designed to answer two research questions, one quantitative in nature and a second question that requires qualitative methods. The rationale for doing a mixed methods study instead of one that was strictly quantitative study is the premise that the qualitative phase will add both "breadth and scope" (Tashakkori & Teddlie, 1998) to the quantitative results. The study followed a QUAN/QUAL sequence. First, the Children's Academic Intrinsic Motivation Inventory (CAIMI) was used to measure the intrinsic motivation of SWD before and after teachers implemented motivational intervention strategies they learned in training Then, a focus group interview was held with the teacher participants to gain the voice of the practitioner and to provide data to explain the results from the quantitative phase.

Research Questions/Hypothesis

Research Question 1: Will teacher training in motivational strategies and the subsequent implementation of these strategies have a significant effect on the intrinsic motivation of SWD in the general education classroom?

Ho1: Teacher training in motivational strategies and the subsequent implementation of these strategies will have no significant effect on the intrinsic motivation of SWD in the general education classroom.

Ha1: Teacher training in motivational strategies and the subsequent implementation of these strategies will have a significant effect on the intrinsic motivation of SWD in the general education classroom.

Variables as identified in the null hypothesis included teacher training in motivational strategies and the subsequent implementation of these strategies (independent variable) and intrinsic motivation as measured by the CAIMI (dependent variable).

Research Question 2: How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for SWD in inclusive classrooms?

Anticipated findings: Teachers will experience a change in practice and notice higher levels of intrinsic motivation in SWD after implementing strategies presented in training.

Population/Sample

The setting for the study was an elementary school in southeast Georgia. In the school system there were 694 SWD being served in inclusive classrooms for most of the day during the 2007-08 school year. A sample of n = 8 students in the Grade 4, and n = 10 students in Grade 5 were invited to participate. This sample of n = 18 students constituted all SWD in the fourth and fifth grades participating in the general education setting for 100% of their school day.

Throughout the school system, 41 general education teachers taught these students in inclusive classrooms. A sample of n = 9 general education teachers were asked to participate in the study. Since Grades 4 and 5 at the research site were

departmentalized, all of the teachers taught all of the students with disabilities each day. Of the nine teachers, 5 taught 4th grade and 4 taught 5th grade.

Method

There are numerous models of mixed methods research. Tashakkori and Teddlie (2003) stated the model chosen depends on the purpose of the question. They went on to say "when the purpose is complex (as it often is), it is necessary to have multiple questions, and this frequently necessitates the use of mixed methods" (p. 169). This researcher chose a mixed methods strategy because she desired to understand the reasons behind statistical data garnered from a pretest posttest design. The broad purpose of any research is to collect data to answer a research question. The real purpose of the study however is why the question was chosen. This study was pursued as action research because the researcher wished to learn if there was anything teachers could do to help struggling students want to learn. The sequence and type of data gathered called for a sequential explanatory study because the qualitative data was to be used to explain the statistical evidence gained during the initial quantitative phase.

Data Collection

During the quantitative phase of the study data were collected using the Children's Academic Intrinsic Motivation Inventory (CAIMI; Gottfried, 1986). The initial administration provided baseline data for the students' level of intrinsic motivation in the General subcategory, which measures academic intrinsic motivation in general

rather than subject specific areas. The teacher participants then took part in research-based training in intervention strategies and implemented these strategies in the classroom. A follow-up administration of the CAIMI provided data on the effect of the implementation of the strategies on the intrinsic motivation of SWD in the classroom. Norm referenced scale scores from the CAIMI provided the raw data needed to measure change in intrinsic motivation.

The qualitative phase of the study involved a focus group interview with the general education teachers, which was facilitated by a research assistant. This phase of the study provided data on any changes in teacher practice resulting from the intervention training and implementation, but most importantly, it helped to explain the quantitative results. The focus group interview was coded and analyzed using a typology strategy. A complete discussion of design, setting, and sample is included in Section 3.

Data Analysis

In the first phase of the study, SPSS software was used to analyze the quantitative data obtained from the CAIMI. The repeated measures *t*-test was used since the same group of students was tested before and after the motivational intervention strategies were implemented. The CAIMI was administered before and after teacher training and subsequent implementation of intrinsic motivational strategies. Data from the initial administration were used as a baseline and the *t*-test was employed to determine if there was a significant difference after the treatment.

Typological analysis was used to explore the data gained during the qualitative phase of the study. The typologies were developed during the writing of the guiding questions for the focus group interview. Once completed, the interview was transcribed and the researcher read the data three times. With each reading elements were color-coded based on the predetermined typologies and summary sheets were created. These summary sheets aided in the identification of themes and patterns in the data.

Finally, the data were integrated. Fundamental to the sequential explanatory mixed methods design is the use of one qualitative data to explain the qualitative results. The researcher used a focus group interview to help explain the CAIMI results and also to add the voice of the practitioner to the results.

Purpose of the Study

The purpose of this sequential explanatory research study is twofold. In order to address the problem set forth in Section 1, the researcher needed to answer two questions. First, the quantitative portion of the study was designed to discover if teacher training and implementation in motivational strategies would have a positive effect on the intrinsic motivation of SWD included in the general education classroom.

Currently, educators and administrators in Georgia are left with no choice but to include SWD in the general education classroom in increasing degrees (Georgia Department of Education, 2007; IDEA, 2004). While the evidence appears to suggest that inclusion has a positive effect on the academic achievement of SWD (Cawley, Hayden, Cade, & Baker-Kroczynski, 2002; Peetsma et al., 2001; Rea et al., 2002; Saint-Laurent et

al., 1998) other research indicates that effects are mixed (Daniel & King, 2001) or negative (Marston, 1996). Additional factors such as motivation, behavior, type of classroom, and subject matter may or may not have an impact on achievement for SWD in the general education environment. Linnenbrink and Pintrich (2003) stated these students, many of whom are not confident in their academic ability, are more likely to give up in this challenging environment. In contrast, they state students who believe they have the ability to successfully complete a task are "much more likely to be cognitively engaged" (p. 130). Deci and Flaste (1995) stated teachers cannot motivate their students because motivation must come from within. This study was undertaken because the researcher wishes to determine if teachers can create an environment in which students will motivate themselves.

Secondly, the qualitative aspect was implemented to explore the teachers' perceptions of the relationship between teacher training in motivational intervention strategies, teacher practice, and the intrinsic motivation of SWD in inclusive classrooms. According to Dantonio (2001), mandated training for teachers may inspire public confidence, but true professional development will begin on a teacher-to-teacher basis as teachers identify their own needs. "It is teacher sponsored and teacher driven" (p. 12). The researcher and the teachers of the students in question have voiced concerns about the lack of engagement for SWD in an academic setting. These educators "are responsible for determining, developing, and refining their own teaching practices" (p. 12). Because this is an area of great concern to the educators, the training should result in new ways of teaching and have a greater impact on day-to-day practice.

Theoretical Framework

The connection between intrinsic motivation and the achievement of SWD in the general education classroom in this study is situated in two theories: drive theory and social cognitive theory. The drive theory of John Atkinson (Atkinson & Feather, 1966) suggests two drives compete in every individual: the drive to succeed and the drive to avoid failure. Though the two drives operate simultaneously, one will win out over the other, thus becoming habitual behavior; this predominant drive will influence attitude and motivation whenever challenges are faced (Marzano, 2003). Since motivation is a catalyst for achievement, achievement will either suffer or be bolstered based on which drive is predominant: success oriented or failure avoidant (Atkinson & Feather, 1966). SWD included in the general education classroom will face many challenges; based on the drive theory, these students *will be* motivated. The obligation of the teacher is to ensure that the motivation to succeed supersedes the motivation to avoid failure when faced with challenging material.

At the core of Bandura's (1986) social cognitive theory is self-efficacy, which is defined as an individual's belief in his or her ability to succeed at a given task This belief will determine motivation to attempt that task. "Because unless people believe that their actions can produce the outcomes they desire, they have little incentive to act or to persevere in the face of difficulties" (Pajares, 2002, para. 14). Bandura also wrote that motivation to attempt a task is more rooted in what individual's believe they are capable of doing than in their actual capabilities. According to Bandura, these self-efficacy beliefs will affect the choices students make and their behavior toward challenging academic

tasks as well as other aspects of human functioning. Students with a history of success, then, will act on the belief that they are capable when contemplating engagement in a challenging task and behave accordingly. Conversely, students accustomed to failure will not be motivated to attempt challenging tasks since the outcome may be undesirable.

According to Pajares (2002), Bandura assumed self-efficacy beliefs influence individuals' motivation to attempt a task. In addition, these beliefs determine the amount of effort spent on an activity, perseverance when confronting obstacles or setbacks, and resilience when faced with difficult circumstances. All of these traits, are needed for the successful completion of challenging tasks. In addition, self-efficacy beliefs will influence "thought patterns and emotional reactions" (p. 140). High self-efficacy will produce feelings of competence and calmness, but low self-efficacy will produce feelings of ineptness and anxiety. These feelings will determine the individual's concept of task difficulty and his or her competence to complete the task. In terms of students, those with high self-efficacy will look at difficult tasks as challenges to be overcome, while students with low self-efficacy will look at challenging tasks as situations to be avoided (Bandura, 1986; Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003).

There are those however, who take issue with Bandura's theory. While Marzillier and Eastman (1984) agree with Bandura's tenet that one's belief in his or her ability to complete a task has great influence on the decision to engage in the task, they stated that outcome considerations are an equally determining factor. In response to Bandura's work they stated,

> Since human activity can be seen as a continuous interchange between behavior and environmental response (outcome), any assessment about

> how well one is going to perform a particular activity must take into account not only one's estimation of competence but also an assessment of what likely outcomes may occur. (p. 259)

Marzillier and Eastman concluded by stating that the focus must not only be on the person's perceptions of competence (self-efficacy) but also on their perceived outcome of the given task. "Distorted perceptions about the magnitude of the task…or the likely consequences of action…will be as important as their assessment of self-efficacy" (p. 262).

More recently, Deci and Flaste (1995) stated that while perceived confidence is important it is not enough. They posit that in addition to self-efficacy people need to feel autonomous. They must feel that they are being supported, not manipulated. They add, "Gaining competence alone is not enough. To be a competent pawn, to be effective but not to feel truly volitional and self-determined at the activity you can do so well, does not promote intrinsic motivation and general well-being" (p. 70).

Finally, although Meichenbaum (1990) expressed admiration for Bandura's scholarship and depth of knowledge, he also urged caution. Speaking of Bandura's *Social Foundations of Thought and Action* (1986), Meichenbaum reported it "surprising to find his discussion of the nature of social foundations of thought and action to be somewhat narrow" (p. 99). He urged Bandura to consider the works of other theorists in the field.

Every theory has its caveats, thus the descriptor "theory." Despite the critics, Bandura's theory has "provided psychology with a model that portrays people as both products and producers of their own environments" (Simon, 2001, p. 34). In addition,

many psychologists still use the theory as a basis for clinical work and countless researchers situate their studies in his work.

The work of both theorists indicates that students tend to pursue tasks they feel capable of achieving (Atkinson & Feather, 1966; Bandura et al., 2003). Between NCLB and IDEA, SWD are expected to achieve academically in all areas, including those the educational system has already identified as areas of significant weakness. Special education placement committees agreed the students could not learn in specific areas without specialized instruction. Therefore, in conjunction with parents, the team designed a course of study to remediate and close the gap. This specialized course of study often required a separate setting. Due to current legislation, these students are now being returned to the environment they found frustrating and failure ridden. Within this environment, they are expected to accomplish the same challenging tasks as general education students with less or even no time in a setting that is conducive to their learning needs. Frustration increases and the student's belief in his or her ability to achieve plummets. High self-efficacy is needed in order to persevere when faced with challenges (Bandura et al., 2003). On the other hand, low self-efficacy leads to avoidance and anxiety, which is perceived as a lack of motivation. Like general education students, SWD are motivated either to succeed or to avoid failure (Atkinson & Feather, 1966). That motivation, according to Bandura (1986), will be steeped in the student's self-efficacy, which determines whether the student engages in a task or avoids the task (Atkinson & Feather).

Writing on Atkinson's drive theory, Marzano (2003) stated that either the success oriented or failure avoidant behavior will become predominant over time. Teachers cannot motivate students (Deci & Flaste, 1995), but they may be able to employ strategies or develop relationships that will create an environment in which students with disabilities become intrinsically motivated to achieve. Doing so may change the course of students' academic careers. According to Marzano, when students engage and persevere in academic tasks, it is more likely that academic achievement will increase. Increased achievement will lead to higher self-efficacy, which will lead to more engagement. Based on Atkinson's theory, this increased achievement and higher self-efficacy will lead to success oriented behavior (1966). The more a student succeeds, the more likely it is the success-oriented behavior will become predominate. Thus, the self-defeating cycle will be broken.

Studies situated in drive theory and self-efficacy have been conducted on typically functioning and struggling learners. Two research articles that specifically targeted the motivation of SWD were found by this researcher (Garcia & de Caso, 2004; Lackaye & Margalit, 2006). Garcia and de Caso (2004) studied the impact of training students in several motivational strategies including self-efficacy and self-esteem and the impact of that training on the writing of sixth-grade students with learning disabilities. They found that although positive attitudinal changes resulted from the instruction, there was no evidence that the training led to intrinsic motivation in the area of writing. While the study did focus on motivational intervention, it did not address the issue of SWD struggling to achieve in the general education classroom. The researchers stressed the

importance of increasing writing ability of students and how attributional changes could affect their writing, but they did not suggest implications for further study.

Another study conducted in Israel compared achievement effort and self-perceptions between students with and without learning disabilities (Lackaye & Margalit, 2006). The seventh-grade students attended general education classes. The researchers confirmed that various factors including academic self-efficacy, were predictors of effort investment for students with learning disabilities. While this study focused on students with learning disabilities, it did not focus on SWD in general. In addition, the participants were older than the elementary aged participants the researcher wished to study. According to Gottfried, Fleming, and Gottfried (2001), "It may not be easy to change academic intrinsic motivation in adolescence" therefore, it is important to study this topic early in a child's academic career (p. 11).

It should be noted that many articles are available discussing the merits of teaching motivational strategies to students (Linnenbrink & Pintrich, 2003; Margolis & McCabe, 2003; McCabe, 2006; Schunk, 2003). In addition, a few studies that focus on motivation and SWD were found (Margolis & McCabe, 2003; Peetsma et al., 2001). Research on the impact of intervention in motivational strategies to increase motivation, and research involving the theories of drive and self-efficacy specifically for SWD is scant. In-depth reviews of the articles and research mentioned above can be found in Section 2 of this study.

Operational Definitions

. For the purposes of this study, the following terms are to be understood as follows:

Extrinsic motivation: engaging in an activity expressly because it leads to a desirable outcome. The outcome itself is usually unrelated to the activity (Deci, 1972).

Failure avoidance: attempts to avoid failure by engaging in activities that are very easy or in which success is guaranteed; also involves engaging in activities in which failure is certain, but the failure can be attributed to the difficulty of the task rather than to the individual's effort or ability (Weiner, 1974).

General education: educational setting for students where achievement in grade level curriculum is the norm.

Inclusion: "implies that students with disabilities are a part of the overall school community and should be included in all activities associated with the school" (Georgia Department of Education, 2007, Frequently Asked Questions, Question 1).

Individual education plan (IEP): a legal document that includes the student's current level of functioning, measurable and observable goals for each area of educational need, details of specially designed instruction, and any additional related services needed to support the student with a disability (Logsdon, 2007).

Intrinsic motivation: "the process of doing an activity for its own sake, of doing an activity for the reward that is inherent in the activity itself" (Deci & Flaste, 1995, p. 17).

Least restrictive environment: the concept that students with disabilities should be educated

> with children who are nondisabled; and that special classes, separate schooling or other removal of children with disabilities from the regular education environment occurs only if the nature or severity of the disabilities is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (IDEA, 2004, 34 C.F.R. §300.550)

Self-efficacy: "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391).

Students with disabilities (SWD): Students who have been identified with a recognized disability in the state of Georgia. These students have an IEP designed by a team in the local school based on psychological and academic testing.

Success oriented: the drive to achieve; strive for excellence (Atkinson & Feather, 1966).

Assumptions

There were several assumptions made in regards to this study. First, it was assumed that the students and teachers involved in this study were representative of the total population of fourth and fifth grades in the southeast Georgia school system. The researcher also assumed that students were truthful and capable of responding appropriately to the CAIMI (Gottfried, 1986). The final two assumptions were that the teachers involved in the training fully applied the strategies presented during the training and participated openly and honestly in the focus group interview.

Limitations

The study's sample was limited to students with disabilities in fourth and fifth grades and their teachers in one elementary school in southeast Georgia and therefore cannot be generalized to all grades or all elementary schools. Additionally, since the teacher participants were co-workers of the researcher for between 3 and 15 years, assumptions may have been made or the researcher may have read into responses given during the focus group interview due to personal knowledge of the participants. Finally, the student participants in the study were students of the researcher for at least 1 year. Although steps were taken to bolster validity and reduce bias, this familiarity between the participants and the researcher must be taken into account when drawing conclusions from results of the study. Steps taken to reduce bias will be outlined in Section 3 of this study.

Delimitations

The mixed methods study took place between February and May 2008 at an elementary school in southeast Georgia. Fourteen SWD in Grades 4 and 5 along with their teachers participated in the action research. These students received all instruction in the general education classroom setting.

Significance of the Study

It does not matter that the professionals in the field agree or disagree on the merits of inclusion; it is clear that for the immediate future full inclusion of SWD in the general

education setting will continue. What is not clear is how to ensure the success of these students. This study attempted to extend existing knowledge of how to afford these students the opportunity to move beyond a minimal level of classroom participation and thrive in a traditional academic setting. Teacher leaders and administrators at the local, state, and federal levels can use information on how students become motivated, and how a lack of motivation may interfere with academic achievement. This information may prove useful in helping to close the achievement gap between students with disabilities and their typically achieving general education peers. Federal mandates such as NCLB and the LRE component of IDEA are not optional for SWD; educators must find a way to help these students achieve their academic potential. The results of this study may provide evidence that motivational interventions grounded in self-efficacy and drive theory generalize to this population and the inclusive setting; if not, policy changes may be in order.

Implications for Social Change

The implications for positive social change include better understanding of motivation for SWD in inclusive settings for all educators, and increased knowledge for K-12 administrators and program developers as they continue to seek ways to merge the requirements of NCLB with IDEA. Most importantly, the study may provide research-based strategies for helping SWD succeed in the general education setting every day.

The impact of the implications described in this section can be measured by analyzing the quantitative and qualitative data garnered through this study. While the

study itself focuses on students in the fourth and fifth grades and their teachers at one elementary school, the participants represent their counterparts in other schools. If the strategies lead to success in this school, perhaps they will work in other schools in the district, in the state of Georgia, and perhaps in the nation. Helping students to become "able" as well as knowledgeable is at the core of everyday instruction.

Students will continue to have disabilities. Current legislation and the state's responses to that legislation may be out of the hands of individual educators. What remains within educators' control is their personal response to the legislation. If the analyzed results of this study suggest that strategies may exist which can serve to close the achievement gap between SWD and their higher achieving peers, then positive social change has been realized. The results will add to the body of research available on the subject of increasing the motivation of SWD in the general education classroom. This research can then serve as a springboard for other teacher researchers in other geographic locations.

Summary

The focus of this study was what teachers could do to foster the intrinsic motivation of SWD in the general education setting. The rationale for this focus lies in the changing tide of education. State and federal agencies expect all SWD to achieve at minimum levels of proficiency regardless of placement and disability. IDEA has not changed. Students are still entitled to the support needed to bolster achievement; however, the way school personnel deliver that support is changing. No longer are the majority of these special needs students educated in the protective environment of the

resource room. They spend the majority, if not all, of their day in the general education classroom struggling with grade level material delivered at the pace of the typically achieving learner. Some manage to keep their heads above water while others who have the ability to achieve despite the struggle, seem to lack motivation no matter what teachers do to bolster their chances of academic success. The prevailing question has become, “Is there something teachers can do to make the student care?”

In Section 1 of this study, an introduction and background information were provided. Also included was the statement of the problem and nature of the study. The purpose of the study, theoretical framework, introduction to literature surrounding the problem, and significance of the study were discussed. Delimitations, limitations, and the scope of the study completed the section.

The remainder of this study includes an additional four sections. Section 2 consists of a review of pertinent literature as it relates to inclusion, achievement, and motivation of SWD in the general education classroom. Section 3 outlines the methodology used to conduct the mixed methods study, as well as the justification for that methodology. In addition, the criteria for selecting participants were specified and data collection and analysis were discussed. Section 4 served to present the data and its analysis, and Section 5 completed the paper with an interpretation of the findings. Implications for positive social change within the professional education community, researcher reflections, and recommendations for further research were also offered in the final section.

SECTION 2: LITERATURE REVIEW

Introduction

The literature review that follows consists of pertinent literature as it relates to the research questions and the theoretical framework of this study. It is inclusive of many aspects of the education of SWD including setting and motivation and the effect of their roles on the academic achievement of SWD in the general education setting. It covers intervention strategies for teachers' use as well as researchers' feelings about how these strategies will effect teacher practice and student motivation. Finally, a review of literature on action research and its appropriateness for this study is discussed.

The organization of the review is straightforward. The review covers the most general information first and then concludes with a summary that synthesizes the literature and its relevance to the topic of study. This synthesis also linked the relevance of the topic to social change and its relationship to educator leadership within the K-12 context and the greater professional education community.

The researcher completed the review using a key word search strategy. The sources included multiple electronic databases and libraries including EBSCO host, Proquest, ERIC, UMI Proquest Dissertation, Education Research Complete, Academic Search Premiere, SAGE Journals, and GALILEO. Libraries at the University of Georgia, Georgia Southern University, and Armstrong State College and University were also utilized. Key words that proved fruitful included motivation, academic achievement, special education, elementary/secondary education, inclusive education, instructional

strategies, motivational theory, disabilities, and environment. In addition, books that covered the topic were useful.

Historical Look at Inclusion and Least Restrictive Environment

Special education is still a relatively new field, but it has changed tremendously since its inception just over 3 decades ago. Before PL 94-142, the forerunner of IDEA, many students with disabilities were not identified, and their education consisted solely of fulltime instruction in the general education setting with no accommodations or modifications. After the passage of this ground breaking act in November 1975, the educational placement of these students became a subject of great debate (Vaughn, Elbaum, Schumm, & Hughes, 1998). Many have weighed in on the merits of full inclusion (Fuchs & Fuchs, 1994), while others insist that special education should remain separate and special (Hockenbury et al., 2000).

In 1997, Public Law 105-17, better known as the Individuals with Disabilities Education Act (IDEA) made it clear that students with disabilities were to be educated in the least restrictive environment (LRE). This meant SWD should be educated with their peers in the general education setting to the greatest extent possible. IDEA was reauthorized in 2004, but the LRE tenet remained intact. Educators continue to grapple with what LRE should look like and several service models were developed and prescribed to meet student needs. These models included resource, self-contained, and separate schools.

When President George W. Bush and Congress passed the No Child Left Behind Act (NCLB, 2002) schools became accountable for ensuring that all students met high academic standards. Students in both general and special education would have to meet the same rigorous standards. No longer could a disability or label be used as the reason a student failed to make adequate academic gain on grade level standards. As a result, individual states are striving to ensure that federal guidelines, which require all students make adequate yearly progress (AYP) are met. In response to this legislation, Georgia instituted a plan to ensure students with disabilities receive maximum time in the general education classroom with their peers. According to the State Performance Plan submitted to the United States Department of Education by the Georgia Department of Education (2007), the percentage of instructional time SWD receive in the regular education classroom must increase each year. The goal for 2008-2009 is that 61% of SWD be removed from the regular class no more than 21% of the day. This goal will increase each year so that by the 2010-2011 school year, 65% of SWD will be spending 80% or more of their instructional time in the general education classroom (Georgia Department of Education, 2007).

In addition to these requirements, the plan also stipulates that increasing numbers of students in subgroups make AYP on high-stakes testing. One of these subgroups is SWD. For the school year 2008-2009, 98.75% of all SWD must participate in regular state and local high-stakes testing with no accommodations in the area of reading, language arts, and mathematics (Georgia Department of Education, 2007). Of those

tested, 67% must test proficient in reading and 57.77 % must test proficient in math. These percentages rise each year.

Even though increasing numbers of these students will remain in general education classrooms, it does not change the fact that students with disabilities need, and are entitled to, support as specified in their IEP (Hockenbury et al., 2000). Simply placing the students in the general education classroom is not enough. An examination of the literature concerning the variables for this study follows.

Academic Achievement of Students With Disabilities in Inclusive Settings

Research on academic achievement for SWD in the general education classroom abounds (Cawley et al., 2002; Daniel & King, 2001; Jennings, 2002; Peetsma et al., 2001; Saint-Laurent et al., 1998) and the results are polarizing for educators (Rea et al., 2002). While some argue that special education should remain separate and special (Hockenbury et al., 2000) others use research to examine the benefits of including SWD in the general education population.

Rea et al. (2002) explored the relationship of academic outcomes for SWD in both inclusive and pullout settings. They studied 36 eighth-grade students in an inclusive setting and 22 eighth graders in a pullout setting. The information that resulted from the qualitative and quantitative data indicated that classroom grades for students with learning disabilities served in the inclusion model were considerably higher in all classes than their counterparts who were served in pullout or resource models. Standardized test results were also higher for those students served in the inclusion model. In addition to

increased academic achievement, they found that school attendance was higher among students served in the inclusion classrooms. The researcher noted that better school attendance might be an indicator of increased motivation to learn or satisfaction with the school setting. Several reasons for the lower achievement of students in the pullout models included weak curriculum, lower expectations, and student attitude. They surmised student attitude suffered from the stigma of being removed from the general education classroom.

Although this study showed positive results in the areas of achievement and school attendance for SWD in the general education classroom, the pullout students who did not do as well received resource service at the expense of their elective classes. It is not known how the students felt about having to forfeit their elective classes to attend special education resource classes, or if this had any effect on their motivation to achieve in this setting. However, the results of this particular study indicate that with support, proper accommodations, and an IEP in place, SWD can achieve in the general education classroom (Rea et al., 2002).

In 2001, Peetsma et al. published the results of a mixed methods longitudinal study comparing the cognitive and psychosocial development of students in special and general education in the Netherlands. They were interested in knowing if inclusion in regular education schools offered students with mild disabilities enhanced possibilities for development. They began with a review of how SWD in the Netherlands have often been served in separate schools because educators believed that the students' specific needs could best be met through the expertise of specially trained teachers using

specialized materials in a smaller, controlled setting. Their study included pupils from two different schools. One group was from schools specializing in learning and behavioral difficulties (LBD), and another from a school with students who had mild mental retardation (MMR).

At the end of the 4-year study of matched pairs of primary-aged students, they concluded that students included in the general education schools would do no worse than their counterparts in the special education schools, and for the most part those included would excel cognitively beyond their segregated counterparts. Psychosocial progress was not as promising. There was no significant progress made in this area after 4 years in either program (Peetsma et al., 2001).

This same study also examined the extent of special care for the pupils with special education needs in the general education setting and its effect on their educational progression. The researchers defined this special care as "the extent to which class teaching is differentiated according to pupil's varying needs, the presence of specialist help to assist the teacher with pupils who have learning difficulties, and the use of individual plans" (Peetsma et al., 2001, p. 133). The researchers hypothesized that this special care would lead to greater progression in cognitive and psychosocial development. This was found to be true only in the school for students with LBD. More specialization and differentiation "can even lead to negative outcomes: less progress in mathematical skill, poorer school motivation and less self-confidence" (p. 133).

The results of this study support the inclusion of special education students in the general education setting. Students did make more progress academically in this setting,

but psychosocially, the results were not quite as promising. They caution that while inclusion is better for students in general, some will fare better in the special education setting. In addition, it would be wise to pay close attention to the psychosocial development of students with LBD and MMR when placing them in the inclusive setting (Peetsma et al., 2001).

Cawley et al. (2002) published the results of a quantitative school-based project designed to investigate the inclusion of 114 junior high students. Of the 114, 27 were students with serious emotional or learning disabilities. They were grouped into special education classes by grade rather than by disability. The students were included in general education classes, one Grade 7 and one Grade 8. The project examined the academic achievement of the students as well as their behavior. The researchers concluded that the number of SWD was proportionately equal to the number of general education students passing the exam. Their data showed that the behavior of SWD was not an issue in the class and did not negatively affect either the general education students or the academic achievement of either group. The academic success of SWD was comparable to those students in general education. The results of their study challenged the results of previous studies focusing on academic achievement and behavior of SWD in the general education classroom. The context of this study was a science classroom where students were involved in hands-on learning. Therefore, the results of this study may not generalize to other settings such as reading and language, which are not typically hands-on, participatory settings.

On the other hand, Daniel and King's (2001) quasi-experimental study provided evidence that the results of the effects of inclusion on achievement are mixed. The researchers studied the effects of inclusion on academic achievement and other issues related to inclusion on 12 classrooms. Group 1 consisted of 68 students from four noninclusive classrooms, Group 2 included 34 students from two clustered inclusion classrooms, and Group 3 included 105 students from six random inclusion classrooms. In the matter of achievement, the quantitative evidence did not suggest a reliable pattern of gain or loss. While some students showed gains in achievement, others displayed behavioral difficulties.

This study also revealed that due to an increase of behavioral issues in the inclusion classrooms, the teachers were required to spend more time on discipline causing instruction time to diminish. This decrease in instructional time may have been the reason for inconsistent achievement results. In addition, their results indicated self-esteem was lower in the inclusion classrooms, which may also have hampered academic achievement. Although motivation is not specifically mentioned in the article, the researchers pointed out students in inclusive settings receive benefits. These benefits include an environment that bolsters self-esteem, compassionate educators, and supportive peers. Any one of which could be a powerful force for enhancing the self-esteem of students (Daniel & King, 2001).

Many arguments for and against inclusion based on academic achievement have been found, but only one research study found by this researcher clearly shows negative results. Using two separate studies, Marston's (1996) longitudinal research study

investigated inclusion, pullout, and a combination of the two models and the effects of these models on academic achievement. The first study involved a questionnaire that was mailed to 152 elementary and 63 secondary special education resource teachers. The questionnaire asked about the number of students served with IEPs, the amount of time they were served per week, whether or not there was an inclusion program at the school, and how long it had been in place. Only 61 elementary teachers and 19 secondary teachers returned the survey. In the second study, Marston's focus was on reading improvement among elementary students. He measured the performance of 240 students from all three models with IEP reading goals.

The analysis of variance (ANOVA) showed that of the three models, the inclusion-only model showed the lowest rating, while the combination of inclusion and pullout, received the highest. Marston's research concluded that the full continuum of services must be exercised for SWD so that each student may get what he or she needs to bolster their chances of academic success. While this is true in theory, it may not always work in practice, given the shortage of personnel in some schools and the push from federal and state regulations to maximize the time these students are included in the general education classrooms (Georgia Department of Education , 2007; IDEA, 2004; NCLB, 2002).

Most evidence appears to suggest that inclusion has a positive effect on the academic achievement of SWD (Cawley et al., 2002; Peetsma et al., 2001; Rea et al., 2002; Saint-Laurent et al., 1998). Other research indicates that effects are mixed (Daniel & King, 2001) or negative (Marston, 1996). Various factors such as motivation, behavior,

type of classroom, and subject matter may have an impact on achievement for SWD in the general education environment.

The Role of Motivation on Academic Achievement

Motivation is a complicated construct, and much has been written about the important role of motivation on academic achievement (Atkinson & Feather, 1966; Bandura & Schunk, 1981; Covington & Beery, 1976; Deci, Koestner, & Ryan, 2001; Grolnick & Ryan, 1990; Ryan & Deci, 2000b; Saphier, 2005; Stiller & Ryan, 1992). Most of the research on motivation and student achievement was completed between 1970 and the early 1990s.

Deci (1971) disrupted traditional practice in education when he published his initial work on the negative effect of extrinsic rewards on intrinsic motivation. Thirty years after the initial publication, Deci et al. (2001) examined the issue again. Their meta-analysis of 128 experiments clearly showed that extrinsic rewards undermined intrinsic motivation. The majority of teachers in most schools use extrinsic motivators such as honor roll, good citizenship awards, stickers, verbal praise, pencils, and good notes home in order to motivate students. Deci's analysis of the research found the rewards to have the opposite effect. He and his colleagues stated the very act of rewarding participation undermined intrinsic motivation. They found that the effect was particularly strong for young children. Their work indicated that motivational factors are at the foundation of such variables as adjustment, self-efficacy, self-regulation, and engagement. These

variables are important predictors of academic engagement, which is crucial for student achievement.

Self-efficacy, which is the extent to which a student believes he or she has the ability to complete a task at a certain level of competence was posited by Margolis and McCabe (2003) to be a key factor in improving the motivation of struggling learners. The authors stated that many struggling learners avoid academics because of the constant struggle; they do not engage in academic tasks because of their experience with failure. They simply do not perceive that they are capable of success. This leads to more failure and more avoidance (Marzano, 2003). Margolis and McCabe stated the cure for low self-efficacy requires that teachers "recognize that low self-efficacy is not an immutable, global trait. Rather, it is a modifiable, task-specific set of beliefs" (p. 168).

The authors provided a prescription for increasing self-efficacy for struggling students. This treatment included linking new work to recent successes, offering explicit instruction in learning strategies, providing a collection of learning strategies from which the students can choose, teaching them to attribute success to effort, and assisting in the creation of goals that are personally significant. They assert students will then be more motivated to learn and will consequently become more successful learners (Margolis & McCabe, 2003).

A portion of a study by Peetsma et al. (2001) touched on motivation and SWD in inclusive settings. They found that in addition to learning difficulties, SWD also encounter problems with attention and motivation. The authors noted the vicious cycle of learning difficulties and motivation; motivation to face challenging material is lacking

due to learning difficulties resulting in negative learning experiences. The authors concluded with a call for explicit instruction in motivation and self-image for SWD.

Linnenbrink and Pintrich (2003) published an article on the role self-efficacy beliefs play in student engagement and classroom learning. They stated, “Student self-efficacy is inherently changeable and sensitive to contextual features of the classroom” (p. 136). Drawing on the literature of the past 20 years, they suggested teachers can have a great impact on students’ self-efficacy, which in turn will increase engagement and achievement.

Increasing Intrinsic Motivation

Kozminscy and Kozminsky (2002) specifically addressed increasing the motivation of students through student teacher dialogue. They based the practice on Weiner’s attribution theory. They stated student’s motivation would increase when they learned to attribute their academic achievements “to their own educational efforts and to the appropriate application of learning strategies they practice” (p. 89).

The process began when each student was asked to complete a dialogue page. The instructions required the students to describe one event that was perceived as a success and one that was perceived as a failure. They were then asked to answer the questions, “Why did I succeed?” and “Why didn’t I succeed” in response to the events. The teacher responded in writing with personalized comments and then the papers were returned to the students. At this point, the students responded to the teacher’s comments and one

week later the papers were returned to the students who then wrote an explanation of how they had used the teacher's feedback.

The teachers participated in in-service training held once a week. It included training in attribution principles and how to apply them in the context of the study. Using the student's response pages, they engaged in dialogue to increase their understanding and quality of feedback for the students.

The authors concluded by stating that the process did increase the likelihood of students attributing academic outcomes to controllable factors. They also stated that the change occurred over the period of one year. They pointed out that it was vital that the teachers examined their own causal beliefs, allowing them to be reshaped in the process.

Linnenbrink and Pintrich's (2003) study on the role of self-efficacy on student engagement and achievement included suggestions aimed at affecting motivation. The authors discussed how self-efficacy may be bolstered in three areas: behavioral, cognitive, and engagement. They list and expound on four implications for classroom practice. These include

1. Helping the students maintain relatively high but accurate self-efficacy beliefs.

2. Providing students with challenging academic tasks that most students can reach with effort.

3. Fostering the belief that competence or ability is a changeable, controllable aspect of development.

4. Promoting students' domain specific self-efficacy beliefs rather than global self-esteem (pp. 134-135).

This article did not address a specific grade level, subject area, group of students, or environment. The implications for practice were offered as research-based principles which, when implemented by teachers, may increase self-efficacy, thus increasing motivation, engagement, and finally achievement.

Garcia and de Caso (2004) completed a study specifically addressing motivational intervention and achievement for SWD. Their research provides evidence for specific intervention in motivational strategies in the classroom. Their sample consisted of 127 fifth- and sixth-grade students with low achievement and/or learning disabilities. Using a pretest-posttest design, the control group received standard instruction while the experimental group received instruction in the writing process as well as training in motivation towards writing. Their results showed that the control group's attitudes toward the writing process decreased, while the attitudes of the experimental group increased significantly. Even so, their motivation towards writing did not increase. They explained the results by stating that emotion is a significant variable in motivation. For writing or motivation to increase, the material had to do two things: make sense and increase interest cognitively and emotionally. They also concurred with Gottfried et al. (2001) when they stated that after the age of 12, motivation is somewhat stable.

While their study relates to the study at hand, it focused only on writing and older students. Garcia and de Caso (2004) believe, as do Gottfried et al. (2001), that motivation should be affected prior to age 12. Another concern is that the specific motivational strategies used may have been inappropriate for this group or may not have been instituted for an adequate amount of time.

More recently, Boscolo and Gelati (2008) offered suggestions for increasing the motivation to write for students with learning disabilities. These suggestions were offered primarily to the teachers of primary-aged students. Their stated goal was to "suggest instructional activities through which struggling writers can progressively realize that writing makes sense and that they can do it" (p. 72).The suggestions are broken down into three categories: the writing task, the writer, and the writing environment. Though they refer to no theory in their article, the authors do state one of the components impeding motivation to write is the student's belief that he or she does not have the ability to write. This component is related to the self-efficacy theory of Bandura (1986).

Despite the mounting research on the role of setting on academic achievement for SWD, little research has been found connecting the motivation of these to their inclusion in the general education classroom. Gaps between these studies and the current study are noted. Kozminsky and Kozminsky's (2002) work was anchored in Weiner's attribution theory rather than the theories of Bandura (1986) and Atkinson (1966). In addition, it was based on the intervention's use with students in Grade 5 through Grade 10 and students who were typically achieving as well as some who had learning disabilities instead of younger students and students with a full array of SWD. Linnenbrink and Pintrich (2003) offered suggestions for educators based on reviews of research. Like the current study, these suggestions were not offered to address the needs of a specific grade level, subject area, group of students, or environment. The authors did not write the article to present findings from teacher training, the implications for practice were simply offered as research-based principles which, when implemented by teachers, may increase self-

efficacy, thus increasing motivation, engagement, and finally achievement. Garcia and de Caso's (2004) research focused on students older than the students in the study, studying only those with learning disabilities and only the area of writing. Boscolo and Gelati (2008) presented strategies with the goal of increasing the motivation to write for students with learning disabilities. While it did hint at Bandura's self-efficacy theory and addressed the learning environment, it focused only on students with learning disabilities and the writing process. It also only made suggestions for teachers, but did not study the effect of training the teachers to implement the suggestions.

The current study was created specifically to examine the effect of teacher training in subsequent implementation of strategies that offer promise in creating an environment in which SWD would be intrinsically motivated to engage in learning despite the struggle. It was designed to fill the gaps in the literature, as its participants were SWD prior to the age of 12 with a broad range of disabilities who received their education in the general education classrooms. Teacher training, which was found in only one of the articles reviewed, was of major importance. The researcher wished to learn if teacher training in research-based strategies would have an effect on the learning environment. Lastly, while most other studies examined motivation through the lens of specific subjects, this study examined intrinsic motivation for school learning in general.

The study added to the body of knowledge provided by researchers such as Linnenbrink and Pintrich (2003), Kozminscy and Kozminsky (2002), and Garcia and de Caso (2004). Research based strategies posited by Margolis and McCabe (2003) and

Linnenbrink and Pintrich as well as those posited by Saphier (2005)will be utilized in the teacher training.

Action Research

Action research is defined by Mills (2003) as "any systematic inquiry conducted by teacher researchers…in the teaching/learning environment to gather information about how…they teach, and how well their students learn" (p. 5). It is research instigated by teachers for the purpose of answering questions about their practice, problems in their school, or questions about their students. Cochran-Smith and Lytle (2001) described this model as a search for knowledge-*for*-practice as opposed to knowledge-*of*- and knowledge-*in*-practice. It is a model based on the assumption that "the knowledge teachers need to teach well is generated when teachers treat their own classrooms and schools as sites for intentional investigation" (p. 48). Dana and Yendol-Silva (2003), label the practice as teacher inquiry. They stated, "The teacher inquiry movement focuses on the concerns of teachers (not outside researchers) and engages teachers in the design, data collection, and interpretation of data around their question" (p. 4).

Those working on the front lines of the educational system are the practioners of action research. Its organization is most closely understood as cyclical in nature (Hatch, 2002, p. 31). Mills (2003) summarizes the many guidelines and models of action research that have been put forth, but most models have four areas in common. He provides this straightforward four-step process:

1. Identify an area of focus.

2. Collect data.

3. Analyze and interpret data.

4. Develop an action plan (p. 5).

Whether action research is a requirement or it is born of genuine inquiry, the initial phase is the same. The area of focus must be identified and clarified. True to the nature of action research or teacher inquiry, the area of focus or *wondering*, as Dana and Yendol-Silva (2003) label it, springs from a teacher's everyday experience as she strives to make sense of "the child, the context, the content, the acts of teaching, and the teacher's own beliefs of dispositions" (p.14). This can be accomplished by making a statement describing an area of concern (e.g., My students with disabilities do not seem to be as motivated to achieve in the general education classroom as they were in the resource room.), and then asking a question (e.g., What happens to motivation if teachers are trained to transform the environment?). The answer to the question will inform teaching practice.

After the wondering or area of focus is identified, Mills (2003) stated the teacher-researcher should conduct reconnaissance. This is a systematic look at the nature of the problem as it relates to the researcher's personal situation and at the researcher's personal beliefs. Existing literature on the issue should be reviewed. The researcher may find alternative ways of looking at the issue or may shed light on practices in place that may solve the problem.

The collection of data is the second phase in the action research process. Mills (2003) stated the question or the nature of the research problem drives the decision about

which type or types of data to collect and how to collect that data. He goes on to say that while neither qualitative nor quantitative methodology is superior, the literature supports the use of qualitative methodology when undertaking action research. In most instances of qualitative research the data "occurs naturally and are regularly collected by teachers" (p. 52).

At some point in the process, the information gathered must be analyzed and summarized. This is Phase 3 of the process. The researcher has embarked on a journey to answer a question and the answer to that question lies in the data. Mills (2003) suggested there is no substitute for immersing oneself in the data. He wrote, "Literally bury yourself in what you have. Read and reread, listen and relisten, watch and rewatch. Get to know intimately what you have collected. Struggle with the nuances and caveats, the subtleties, the persuasive, the incomplete" (p. 104).

Finally, based on the answers resulting from careful data analysis, the researcher develops an action plan. The scope of the plan will depend on the scope of the problem. Some assume that the "action" part of action research occurs only after all of the facts are in since action planning is in response to the question being researched. However, Mills (2003) suggested action is ongoing. In the course of their day, teachers naturally implement the processes of teaching, analyzing, remediating, accelerating, and extending. These same processes should generalize to action research.

Summary and Implications for Social Change

Much research in the recent past has covered various aspects of inclusion and motivation. Since that time, many articles have been written offering strategies based on what was learned through the research. This review of the literature was meant to capture the essence of the research.

The conclusion to date is that the academic and social benefits for students with disabilities in the general education classroom are mixed. While there is some empirical evidence suggesting SWD do achieve more or benefit socially when included with their general education peers, other research yielded mixed or even negative effects.

Likewise, research conducted to examine the motivation of SWD in the general education classroom yielded mixed results. Most of this research was conducted between 1970 and 1990. Since that time, IDEA and NCLB have changed the way students with disabilities are served. Each year, increasing numbers of SWD are being educated within the general education classroom (McLeskey & Henry, 1999).

Most researchers contend that students who believe they can achieve act on that belief. Self-efficacy, the belief that one has the skills necessary to complete a given task successfully, is needed before students will put forth the effort needed to succeed (Bandura, 1986). Perhaps a study examining what can be done to create an environment where students with disabilities will be intrinsically motivated to learn (Deci & Flaste, 1995) will give educators the information and strategies needed to narrow the gap between students with and without disabilities.

SECTION 3: METHODOLOGY

Introduction

The purpose of this research study was to study the impact of teacher training in motivational strategies and the subsequent implementation of those strategies on the intrinsic motivation of SWD in the general education setting. The intent of this chapter is to outline the sequential explanatory methodology chosen to carry out the study. A justification for the methodology is also included.

Before data collection began, research proposals were submitted to the Institutional Review Board of Walden University, the Interim Superintendent of Schools, and the building principal at the research site. After reviewing the proposals, permission to conduct research from the Interim Superintendent and the building principal was granted. The researcher completed revisions required by The Institutional Review Board (IRB) and permission was granted to conduct the study in February 2008. IRB approval number 03-10-09-0307493 was assigned to the study.

The researcher chose a sequential explanatory mixed methods action research design to carry out the study. This design was most appropriate because the researcher desired to study the effect of teacher training and implementation of strategies designed to bolster the intrinsic motivation of SWD through quantitative means, and then explore the quantitative findings through the eyes of the educator (Tashakkori & Teddlie, 2003). A focus group interview with the teachers who implemented the strategies served this purpose. The qualitative findings were used to help explain the statistical findings from the quantitative phase of the study. The CAIMI (Gottfried, 1986) provided baseline

quantitative data on the students' intrinsic motivation (see Appendix A). This measure was chosen for two reasons. First, it targets the age group of students who were participants in the study. In addition, one of the five hypotheses tested by Gottfried in the validity phase of the instrument stated that "academic intrinsic motivation would be positively related to children's perceptions of their academic competence" (Naccarato, 1988, p. 18). This hypothesis relates to the current study as it ties directly to self-efficacy, one of the two theories in which the study is situated. The CAIMI was re-administered after a period of 9 weeks to determine what effect, if any, the training and subsequent implementation of the strategies had on the intrinsic motivation of the SWD. Next, the researcher used the qualitative data obtained from a focus group discussion with the teachers involved as a means of enriching the quantitative findings.

Research Design and Approach

Action research in the form of a mixed methods study was used to study the effect of teacher training and subsequent implementation of research-based motivational strategies on the levels of intrinsic motivation of SWD in the general education classroom. Mills (2003) defined action research as "any systematic inquiry conducted by teacher researchers…in the teaching/learning environment to gather information about how…they teach, and how well their students learn" (p. 5). Since the study emerged from the researcher's desire to effect change in the context of her student's learning environment, action research was a logical choice.

The research followed a sequential explanatory design. The researcher chose this particular design because the data were collected in two phases. While quantitative data were given priority, qualitative data were gathered as a means of enriching the findings and giving voice to the statistical data (Creswell, 2003). The teachers' perspectives on how training in motivational strategies affected their practice, and thus the students' engagement was of profound interest to the researcher.

There are definitive strengths for this mixed methods approach. First, it is a clear-cut design and is therefore more easily implemented than other designs. This is because data collection and data analysis fall into two distinct stages with a synthesis of data at the conclusion (Tashakkori & Teddlie, 2003). Lastly, combining quantitative and qualitative data in one study serve to strengthen results. The researcher was interested in the quantitative data obtained through the administration of the CAIMI. However, there was an equal interest in the teachers' perspectives of how the training affected their practice and the intrinsic motivation of SWD in the general education classroom environment. The information gained from the interview helped to inform the researcher about change in teacher practice.

Data collection took place in an elementary school in southeast Georgia. The initial administration of the CAIMI occurred March 17, 2008. The training for fourth- and fifth-grade teachers followed on March 19, 2008. The teachers implemented the strategies for a period of 9 weeks after which the school psychologist completed the follow-up administration of the CAIMI. The data were analyzed using a repeated measures *t*-test (Gravetter & Wallnau, 2005) to compare the mean difference between the

pre and posttest scores. Finally, a focus group interview was conducted with the teachers participating in the study and the data were analyzed typologically (Hatch, 2002).

Quantitative data provided the baseline data on intrinsic motivation. A follow-up administration of the same instrument measured the possible impact of the implementation of motivational intervention strategies. Secondary data in the form of a focus group interview proved useful and enriched "the overall data sets of qualitative studies" (Hatch, 2002, p. 131). The quantitative and qualitative aspects were integrated as the researcher interpreted all data (Creswell, 2003).

Setting and Sample

The research was conducted at an elementary school in southeast Georgia. The population for the quantitative phase of the study was the 694 special education students in the school district served in inclusive settings for most of the day during the 2007-2008 school year. For the qualitative phase of the study, the population consisted of elementary teachers in the district who taught in inclusive settings. There were 41 teachers who taught in inclusive settings in the county's eight elementary schools during the 2007-2008 school year. A sample of 18 SWD in the fourth and fifth grades who participated in the general education setting 100% of the school day at the researcher's home school was asked to participate in the study. This sample constitutes all SWD in the fourth and fifth grades served in inclusive settings. Their general education teachers were invited to participate in the qualitative phase of the study. This group consisted of 9 general education teachers, 5 of whom taught fourth grade and 4 of whom taught fifth grade.

The students and teachers were chosen through purposeful sampling. This method was chosen because the essence of the research study was to determine if a change in teacher practice could have an effect on the intrinsic motivation of the SWD with whom the researcher worked with on a daily basis. Convenience sampling was also utilized for the study because the participants were a naturally formed group at the school in which the researcher wished to study (Creswell, 2003). The sample is also considered multilevel sampling since there were "two or more sets of samples that are extracted from different levels of the study" (Collins, Onwuegbuzie, & Sutton, 2006, p. 70). This selection process has limitations. Since the purpose of quantitative research on a sample is to generalize results back to the population (Gravetter & Wallnau, 2005), the convenience sample may prove too small. However, action research is the driving force of this study. The researcher embarked on the project with the goals referred to by Mills as characteristic of action research and that involve "gaining insight, developing reflective practice, effecting positive changes in the school environment…and improving student outcomes and the lives of those involved" (Mills, 2003, p. 5). This project was intentionally designed to study the effect of specific practice on the intrinsic motivation of the students under the researcher's direct care, making the convenience sample the most appropriate sampling method.

The sampled participants in the study represented students across the spectrum of disabilities including those with learning disabilities, emotional/behavioral disorders, other health impairments, speech and language impairments, hearing impairments, and autism spectrum disorders. Eight students matched the sample criteria in Grade 4, while

10 matched the study criteria in Grade 5, totaling 18 SWD who were invited to participate. Of the 18 students asked to participate, three of the students' parents declined participation; their decline to allow student participation brought the sample size to 15. Of those participating in the initial administration of the CAIMI, one student moved during the study bringing the total number of students who participated from the beginning to the end of the study to 14. All of the 9 general education teachers agreed to participate in the study.

Gravetter and Wallnau (2005) defined a sample as "a set of individuals selected from a population, usually intended to represent the population in a research study" (p. 4). The sample size for the study was small and therefore, it may not statistically represent the intended population. However, it consisted of the total number of SWD in the fourth and fifth grades at the research site who agreed to participate and were enrolled in the school for the duration of the study. It also included all nine teachers of these students. Because the sample size was small, the researcher offers the findings as indicative but not conclusive of patterns found.

Eligibility Criteria

Students were selected for participation because they were SWD being served in the general education setting. The study was limited to students with disabilities in the fourth and fifth grades, as the CAIMI (Gottfried, 1986) is normed for students of this age. The sample of 14 students represented a broad spectrum of categories of students with disabilities served in the county. The criterion for teacher participation included teaching

fourth or fifth grade, and teaching SWD in the general education setting. All five fourth-grade teachers and all four fifth-grade teachers were asked to participate in the study.

Characteristics of the Sample

Students

Students in the sample were both male and female and between the ages of 8 and 12. The students were multiethnic and could be categorized as Caucasian, African American, multiracial, and Hispanic. The students were predominantly male; there were 5 female and 12 male students. Table 1 details the demographics of the sample

Table 1

Students Meeting Study Criteria by Race, Grade, and Gender

	Fourth grade		Fifth grade	
	Male	Female	Male	Female
Caucasian	2		4	2
African American	2			2
Hispanic	1			
Multiracial	1			

Table 2 details the breakdown of students according to disability. Participants in the study met the criterion for varying disabilities. These categories included autism, behavior disorders, intellectual disabilities, hearing impaired, speech/language impaired, as well as other health impaired.

Table 2

Students Meeting Study Criteria by Grade and Disability

	Fourth grade		Fifth grade	
	Male	Female	Male	Female
Autism	1		1	
Emotional/behavioral disabled	1		1	
Hearing impaired				1
Intellectually disabled	1			2
Learning disabled			3	
Other health impaired	2		1	

To the casual observer, most of the students described above could not have been identified as having disabilities. They had friends in the classroom and participated in all activities with their peers. Behaviorally and academically, they did not overtly stand out, as there were others in the grade level without disabilities who struggled in these areas. What did set these students apart was years of struggles despite intervention strategies. Each student in the study had been placed in a special education program based on the determination of an IEP team. The decision to place the child in special education was based on psychological testing, observations, student work samples, and at times medical information. In most cases, these students read two to three grade levels below their peers

and needed more accommodations in order to participate in the general education curriculum.

Teachers

The general education teachers of the SWD in Grades 4 and 5 served as the sample for the qualitative phase of the study. The teachers' personal insights into their practice and its effect on their students added depth and clarity to the quantitative results. A convenience sample was used because the project was designed to study and enhance the practices of teachers in the researcher's school in order to effect change on the intrinsic motivation of the SWD, who were students of the teachers and the researcher. After gaining permission from the building principal, the local school system superintendent, and the Institutional Review Board, teachers were invited to participate in the study through an initial email. This was followed by an official written invitation. Since both grade levels are departmentalized, all teachers on each grade level teach all students in the grade level including those with disabilities. Nine teachers were asked to participate. Five of the teachers taught fourth grade, while four taught fifth grade.

Role of the Researcher

The researcher's role in the study was that of teacher researcher. As the special educator in the research setting, she was not the primary teacher, but she did co-teach in the classrooms and provided support for the students and the general education teachers on a daily basis. Although the study can be considered backyard research (Creswell,

2003), the quantitative aspect as well as member checking, peer-debriefing, and the use of a research assistant (See Appendix B) and school psychologist (see Appendix C) may ease concerns of bias in data reporting. The purpose of action research is that it serve as a "tool for solving problems experienced by people in their professional, community, or personal lives" (Stringer, 1999, p. 11). Understanding this, the role of the researcher was naturally one of personal involvement with the participants. In order to reduce bias, various measures were taken to "create reader confidence in the accuracy of the findings" (Creswell, 2003, p. 184). These strategies are discussed later in this section.

It was the responsibility of the researcher to engage the services of an outside research assistant. The research assistant explained the teacher researcher's role in the study to the student participants and their parents as well as the general education teacher participants. This was important since all involved saw the researcher daily in the capacity of special education teacher. It was made clear that all information collected would be for the purpose of the research study, all participants would remain anonymous, and data collected would remain confidential. Each general education teacher and the parent(s) of each participant were offered a copy of the completed study.

The research assistant is versed in qualitative research to include focus group interviewing. Her role in the study helped to reduce researcher bias. As Hatch stated (2002),

> It is just too difficult for educators to pull back from their insider perspectives and see things with the eyes of a researcher. It is just too difficult for participants in the study to respond to the researcher as researcher not teacher, colleague, or boss. (p. 47)

In the context of this study, it was believed that the participants would prove more open and honest with an outside research assistant during the data collection phase.

The school psychologist was recruited to facilitate the administration of the CAIMI. The researcher's role included preparing materials and securing facilities; however, facilitating the pre and postadministrations of the inventory fell to the school psychologist who is qualified to administer the inventory based on the criteria set forth by PAR, Inc, the company holding the copyright for the CAIMI. The school psychologist scored the inventory, but the researcher analyzed the data gathered.

The researcher was also responsible for designing and implementing the teacher training. After the training was developed, the researcher worked with the building principal to find a date and time that met the requirements of the study as outlined in the IRB, and that fit into the confines of the school's calendar. The researcher gathered all necessary equipment and materials to implement the teacher training, secured the location, and arranged the room so that the participants would be comfortable. The last responsibility was for the researcher to deliver the training and follow up with the teacher participants.

After the quantitative phase, the researcher worked with the research assistant to prepare guiding questions for the focus group interview and then pilot tested them with a team of five colleagues to improve reliability. She secured the school's conference room and recording equipment for the focus group interview. She also conferenced with the research assistant to ease any concerns before the assistant facilitated the focus group

discussion. After the interview, the researcher analyzed the data gained from the interview for themes to substantiate or refute the quantitative results.

Quantitative Sequence

The CAIMI (Gottfried, 1986) was used to measure the intrinsic motivation of the 14 SWD in the fourth- and fifth-grade classrooms. This inventory consists of five subtests: reading, mathematics, social studies, science, and general learning. Within each subtest are five scales designed to measure the student's enjoyment of learning, orientation toward mastery, curiosity, persistence, and learning of challenging, difficult, and novel tasks. Designed for students in Grades 4 through 6, the instrument's author asserted that it "provides a means for differentiating motivation from achievement and ability, within and between the subject areas represented" (Naccarato, 1988, p. 12). Guidelines for the inventory state administration time ranges from 20 minutes to 1 hour. Since many of the students read well below grade level, administration required the test be read aloud to some students and therefore, the time needed was closer to the 1-hour timeframe.

The CAIMI is a norm-referenced tool and the administration yielded scale scores. The instrument allowed the researcher to clearly interpret student scores, and the manual provided profile information and norms. Because the technical manual allowed for the scores for each subscale to be interpreted individually, it was possible to isolate scores on only the General subscale, the subscale used to answer Research Question 1.

The CAIMI was administered at the beginning of the study in March 2008. The follow-up administration occurred in late May 2008 during the last week of school. All raw data from the CAIMI was included in the appendixes of this study (See Appendix D).

The repeated measures *t*-test was used to analyze the mean difference between the pre and posttest scores. This information served to answer the quantitative research question: Will teacher training in motivational strategies and the subsequent implementation of these strategies have a positive effect on the intrinsic motivation of SWD in the general education classroom? This particular test is appropriate because Gravetter and Wallnau (2005) assert the test is meant to measure the same variable "twice for the same set of individuals" (p. 275). In this particular study, responses from the same sample of students were compared before and after the shared treatment in order to measure the treatment's effect on intrinsic motivation.

After the administration of the CAIMI, the school psychologist scored the inventories and returned them to the researcher. The researcher then entered the data into a Statistical Package for Social Sciences (SPSS) spreadsheet and used the software to run a paired samples test. The analysis was done to ascertain the mean difference in the CAIMI scores for the students on the general orientation toward learning subtest. The software also provided other statistics such as the means for the pretest and posttest, the standard deviations, and the standard error mean. The statistics were used to report the data and will be discussed further in Section 4.

Reliability and Validity

Naccarato (1988), reported that coefficient alphas on the CAIMI ranged from .80 to .93 for two separate studies. These relatively small studies were based on 260 and 166 students. Nonetheless, Naccarato reported these coefficients are indicative of "extremely high homogeneity of responses and excellent reliability within each scale" (p. 17). When tested over a span of two months, test-retest coefficients "ranged from .69 to .75 across the scales for a sub sample of 138 students" (p. 17). Given the time span and the small sample size, Naccarato, who reviewed several motivational inventories, noted these test-retest coefficients to be more than adequate.

Gottfried (1986) demonstrated construct validity for the CAIMI through several correlations. The author looked at correlations between the scale scores and students' achievement, perceptions of their own competence, and levels of anxiety. The author put forth five hypotheses as she set about determining convergent and discriminate validity of the CAIMI subscales. They were

1. Academic intrinsic motivation would be positively related to school achievement.

2. Academic intrinsic motivation would be negatively related to student anxiety level.

3. Academic intrinsic motivation would be positively related to children's perceptions of their academic competence.

4. Academic intrinsic motivation would be positively related to teachers' perceptions of students' academic intrinsic motivation.

5. Higher academic intrinsic motivation would be associated with lower extrinsic orientation (Naccarato, 1988, pp. 17-18).

The absolute value of the validity coefficients was comparable to most standardized achievement tests with a range of .40 to .62. Naccarato (1988) stated that while these "validity coefficients are not numerically astounding in size, for instruments of this nature it is quite good for them to be comparable to those of standardized achievement tests" (p. 13).

Teacher Training

The researcher implemented training for the teachers in motivational interventions based on Bandura's (1986) self-efficacy theory and Atkinson's (1966) drive theory. Comparing the students' CAIMI scores before and after the training and implementation of strategies provided the data needed to answer the first research question. As such, the training was an integral part of the quantitative sequence.

Training was presented in an informal setting using an electronic slide show (see Appendix H). The participants were also provided with hard copies of the information. The training began with a background in the theories of motivation mentioned above. The researcher reminded the teachers of the difference between intrinsic and extrinsic motivation. She also explained that motivation is not something we do to a student, but something that must come from within (Deci & Flaste, 1995). The strategies presented were drawn from the literature (Bandura & Schunk, 1981; Linnenbrink & Pintrich, 2003; Margolis & McCabe, 2003; McCabe, 2006; Saphier, 2005; Schunk, 2003; Taylor &

Adelman, 1999). The training presented practical ways to increase intrinsic motivation through increasing self-efficacy (Bandura & Schunk) and the drive to succeed (Atkinson & Feather, 1966). It included strategies put forth by Saphier such as patterns of calling on students, responses to students, dealing with errors, and feedback on student performance. During the training, the researcher also outlined practices that should be avoided since they have been shown to decrease intrinsic motivation. These included practices such as an overreliance on extrinsic motivators or rewards and ensuring that the student perceived the teacher as supportive rather than controlling (Taylor & Adelman, 1999).

In addition to explaining the strategies, the researcher presented specific situations. The teachers discussed methods of dealing with the situations by using the strategies offered to build intrinsic motivation, while avoiding practices shown to decrease intrinsic motivation. The teachers spoke freely and dialogue was productive. They shared concerns such as how much wait time was too much and how to preserve student dignity when dealing with incorrect answers. As the training unfolded, some of the teachers realized that they were currently using some of the strategies without realizing it. They shared ideas while the researcher maintained the focus of the group on the training.

In addition to the slideshow and dialogue, a portion of the time allotted for the training was set aside for role-playing. The teachers were given classroom scenarios and were then assigned the role of teacher or student. This portion of the training proved to be

the most useful because the teachers were able to try the strategies in a safe environment with feedback from the researcher and their peers.

The training occurred after school on Wednesday during the first week of the study. This day was chosen so that the teachers would not be pulled from instructional time. The research site had a modified work schedule and Wednesdays were reserved for training and to give teachers the opportunity to collaborate.

Implementation of the strategies began the next day and continued for nine weeks. The teachers had hard copies of the electronic slide show and their notes as guides to aid them in the implementation. They were not required to use specific strategies, but encouraged to incorporate as many as possible into their instruction and interactions with their students.

As a requirement of the school's improvement plan, grade level teams met weekly to discuss all aspects of life at the grade level. During these meetings, the researcher met briefly with each team to answer questions or address any concerns. The teachers shared the strategies that were working for them and stories of how their change in practice was making a difference. They shared challenges and received feedback from the researcher and their peers. In addition, the researcher co-taught in three of the fifth-grade classrooms each day as well as one of the fourth-grade classrooms. She was able to provide feedback on an informal basis. All of the classrooms were on the same hall, making collaboration and support more feasible.

Qualitative Sequence

Focus Group Interview

One week after the follow-up administration of the CAIMI, the research assistant facilitated a focus group interview in the school's conference room. Hatch (2002), stated a comfortable setting that is not too large and affords quality audio recording is important. This location also offered a large oval table such as Hatch recommended. It was large enough for everyone to sit around so all involved were able to see and be seen by everyone. The teachers participating in the focus group had worked together between 1 year and 15 years. There was a level of comfort in place, which served to preclude spending extensive time for building trusting relationships. The research assistant was asked to describe the intent of the research, the role of the researcher, the possible benefits of the project, and to make the participants feel at ease.

Guiding questions were prepared in advance; however, the researcher and the research assistant realized that the interview might go in different directions as the participants explored the topic. This was desired as it serves to create opportunities for more comprehensive understanding of the phenomenon (Hatch, 2002), and to help answer the second research question of the study: How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for SWD in inclusive classrooms?

As Hatch (2002) suggested, these questions provided a "way to keep track of the progress of the group and steer discussions in desirable directions" (p. 137). This prepared list also ensured the assistant maintained focus should the discussion begin to

veer off topic. The questions were open-ended so that the participants were not led to answer in a specific manner; on the contrary, diverse views on the issue were encouraged. Closing questions or statements provided by the research assistant facilitated the summarizing of the issue and provided closure. Guiding questions were

1. How did this intervention in motivational strategies affect the intrinsic motivation of students with disabilities in your classroom?

2. Explain any changes you experienced in your individual practice after the training.

3. How did this intervention in motivational strategies affect the intrinsic motivation of students with disabilities in your classroom?

4. Of all the interventions, which one(s) do you feel had the most impact and why?

5. A statistical analysis revealed no significant difference between the students' responses when the researcher compared what students marked before the training to their responses after the training. Yet, as teachers, you reported seeing a difference in behaviors that can be associated with intrinsic motivation across the board. What insight do you have into why this may be?

According to Hatch (2002), focus group interviews can be used to enrich quantitative data. This study revolved around a specific set of teachers and students. These educators shared the experience of the teacher training and implementation of the strategies. They worked with the students each day. Having the teachers discuss their experiences in a group setting provided the opportunity for information that can only be

gained through group interaction. As the interview evolved, insight into areas that were not evident in individual interviews could have emerged. For example, did the experiences of the science teachers vary from that of the language arts teachers? Did the strategies have different impacts in different settings? Did all students respond in the same way to the strategies? Do all teachers perceive the same outcome of the strategies used? Focus groups have the unique characteristic of providing data that can only be gained when all participants have the opportunity to enter into focused dialogue (Hatch, 2002).

Authenticity

Built into the data analysis procedures were steps to reduce the possibility of researcher bias, thus increasing authenticity of the results. As mentioned above, focus group questions were designed so that they were not leading. Added to the transcriptions were bracketed notes and contextual information taken by the research assistant during the interview. These notes included non-verbal behaviors such as facial expressions or body language, as well as impressions of the assistant. Member checking was used to "determine the accuracy of the qualitative findings through taking the final report or specific descriptions or themes back to participants and determining whether these participants feel that they are accurate" (Creswell, 2003, p. 196). The biases that the researcher brought to the study were defined and rich, thick descriptions were included to help place the reader in the setting.

Data Analysis

Quantitative

The researcher analyzed the quantitative data obtained from the initial administration of the CAIMI to determine the level of intrinsic motivation for each participant in the area of school learning in general. Although the instrument allows for scores in the subject areas of reading, math, social studies, and science, the final category, general, which measures general orientation toward school learning, was the most appropriate score for the researcher to test the hypothesis. The data from the initial administration served as a baseline.

After the collection of baseline data, the teachers of the students participated in training designed to help teachers create an environment in which students were intrinsically motivated to achieve. The researcher delivered the training in the school's conference room. Following the training, teachers implemented strategies in their classrooms for a period of 9 weeks. After this period, the school psychologist conducted a second administration of the CAIMI. The mean difference between the two scores was computed using SPSS software.

The researcher chose to use a repeated measures *t*-test to analyze the data because the same group of students was tested before and after the motivational intervention strategies. Gravetter and Wallnau (2005) stated "The repeated-measures design is especially suited for studying learning, development, or other changes that take place over time" (p. 287). SPSS is designed to run this test using the Paired Samples *t*-test function.

Another important reason for considering the repeated-measures design is that it "removes or reduces or eliminates problems caused by individual differences" (Gravetter & Wallnau, 2005, p. 287). They state one of these differences could be IQ. This was an important consideration in this study because although the students all had disabilities, their IQs ranged from 61 to 139. The reduction in individual differences presented by the use of the repeated measures *t*-test aids in lowering sample variability, which will help to raise the probability of achieving significant results. Because the researcher compared scores on the motivational inventory from the same set of students before and after the treatment (teacher practice), the chance of finding a significant result that is not tainted by individual differences increased. Variability in intrinsic motivation before the interventions was controlled as a result of comparing pre and posttest measures on the CAIMI.

Gravetter & Wallnau also stated that an important disadvantage of the design is progressive error. In other words, the participants' scores may indicate change from factors other than the treatment. One example of this could be attitude during testing. If the student had a bad morning prior to the pretest and an exceptional morning before the posttest, a difference would be noted in the scores, but the difference would be due to attitude not the treatment. The data would not be accurate and the results would be skewed. This factor will be considered when drawing conclusions from the data.

Loss of instructional time required for the administration of the CAIMI was minimal. Students in the fourth and fifth grade had an extended reading period one day per week. This period was established so that students had time for recreational reading

and participation in an incentive reading program. The inventory was administered during this time, so that direct instruction would not suffer. The inventory took approximately 45 minutes to 1 hour per session.

Qualitative

In addition to the quantitative measure, a focus group interview was conducted in the school's conference room. The purpose of the focus group interview was to gain qualitative data that would enrich the data gained from comparing pre and posttest data from the CAIMI. The data were analyzed typologically. This method is useful for focus groups when the intent is to study specific topics from a selected group of people (Hatch, 2002). The data were used to determine if patterns found in the quantitative phase were supported by the typological analysis. In addition, the researcher was interested in the teachers' perspectives on how the training affected their practice and the intrinsic motivation of their SWD.

A typological analysis was used to analyze the transcribed data from the focus group interview. According to Hatch (2002), typologies or categories were devised based on "theory, common sense, and/or research objectives" (p. 152). Since the research was designed around a specific, narrow focus, the categories presented themselves easily. The researcher followed Hatch's typological analysis steps:

1. Identify typologies to be analyzed.
2. Read the data, marking entries related to your typologies.

3. Read entries by typology, recording the main ideas in entries on a summary sheet.

4. Look for patterns, relationships, themes within typologies.

5. Read data, coding entries according to patterns identified, and keeping a record of what entries go with which elements of your patterns.

6. Decide if your patterns are supported by the data, and search the data for nonexamples of your patterns.

7. Look for relationships among the patterns identified.

8. Write your patterns as one-sentence generalizations.

9. Select data excerpts that support your generalizations. (Hatch, 2002, p. 153)

The very nature of an action research project requires that researchers study problems experienced in their "professional, community, or personal lives" (Stringer, 1999, p. 11). Therefore, there was a possibility that the researcher's strong personal involvement would result in researcher bias and compromise the validity of the findings. To combat this, the researcher employed strategies to bolster validity. Mills (2003) suggested relying on "trusted colleagues to offer insights" (p. 114) that may be overlooked due to the researcher's closeness to the work. Throughout the study, the researcher continued to foster relationships with colleagues who offered a critical eye during the data interpretation phase. As another safeguard, Creswell (2003) suggested member checking as a means of ensuring the accuracy of the findings. This strategy gave the participants the occasion to review the work, by "taking the final report…back to

participants and determining whether these participants feel that they are accurate" (p. 196).

Since the role of the researcher in an action research project would naturally be one of personal involvement, the need to reduce bias was increased. Creswell (1998) stated bringing "values, biases, and understandings to a project, and intimate knowledge of a setting may be an asset" (p. 114). However, it can also be a problem since "individuals might withhold information" or "slant information toward what they want the researcher to hear" (p. 114). For this reason, the researcher employed the services of a qualified research assistant. This assistant gathered the data in the qualitative phase of the study. All of the strategies mentioned above were used to reduce bias and bolster the validity of the action research study.

Data Integration

Essential to the sequential explanatory design is the integration of the data so that the qualitative data explains the quantitative results. After the focus group interview was completed and analyzed, the researcher integrated the data in order to help interpret the quantitative findings. In addition, the researcher chose to use the focus group interview to add the voice of the educators to detail their perceptions of the impact of training on their practice and the intrinsic motivation of their SWD. This segment of the process also allowed the researcher to identify issues with validity and reliability. Section 4 will address this in depth.

Justification of Mixed Methods Design

According to Creswell (2003), the past two decades have ushered in many types of research approaches. The three primary approaches are quantitative, qualitative, and mixed methods. Creswell stated the quantitative approach is used when the researcher's interest lies in "cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories" (p. 18). In contrast, through a qualitative approach, the researcher makes claims based on "the multiple meanings of individual experiences, meanings socially and historically constructed, with an intent of developing a theory or pattern" (p. 18). Mixed methods studies result when researchers "combine the qualitative and the quantitative approaches into the research methodology of a single study or multiphased study" (Tashakkori & Teddlie, 1998, pp. 17-18). The mixing of methodologies is useful when the researcher is attacking a question that is "consequence-oriented, problem-centered, and pluralistic" (p. 18). Research questions in this study were developed to address the perceived problem of low intrinsic motivation of SWD in the challenging setting of the general education classroom.

In contrast to a single method study, a mixed methods approach was most appropriate for this study for two reasons. First, the purpose of the study required both quantitative and qualitative aspects. The researcher wished to determine the cause and effect relationship of training teachers in the use of motivational strategies and the intrinsic motivation of SWD. This question required a pretest/posttest experimental design. In addition, the researcher wished to learn the teachers' views on the relationship

between their training in motivational intervention strategies, their practice, and the levels of intrinsic motivation for SWD in inclusive classrooms. This question required qualitative methodology in the form of a focus group interview using open-ended questions and typological analysis. The methods were employed sequentially, with the quantitative being predominate. While the quantitative approach is predetermined, the qualitative emerged as the interview progressed. The information gained from the interview was analyzed and used to help explain and add depth to the quantitative results (Tashakkori & Teddlie, 2003).

The second justification for choosing a mixed methods design for this study was the intended audience (Creswell, 2003). The implications for positive social change in the area of special education compelled the researcher to address colleagues in the field as well as administrators and policy makers at the local and state levels. The quantitative data provided statistical information to inform practice, but the qualitative data added the voice of practitioners. It was important to discover if training in the intervention of motivational strategies and the subsequent implementation of the strategies affected the intrinsic motivation of students with disabilities in the general education classroom. In addition, it was essential to study what the teachers believed about the relationship between the training, their teaching practice, and its effect on the students' motivation. For this reason, quantitative methods alone would not have yielded the information needed to effect social change in the K-12 setting.

"A mixed methods design is useful to capture the best of both quantitative and qualitative approaches" (Creswell, 2003, p. 22). This study combined both quantitative

and qualitative strategies in order to communicate to the intended audience. While the quantitative results are concrete data, the qualitative data will provide “an ‘insider’ perspective” to fellow educators (Creswell, 1998, p. 16). For these reasons, a mixed methods approach was the most appropriate methodology for this study.

When selecting a mixed methods strategy, Tashakkori and Teddlie (2003) stated, the choice of methodology is dictated by the research question. Creswell (2003) added personal experience and the researcher’s audience to the criteria one should consider when choosing an approach. Personal experience is inclusive of the researcher’s own research strengths and writing preferences. When considering choices, the researcher took into account to whom the research results would be addressed. Colleagues in the field and possibly conference attendees are among the intended audiences for the results of this study. Including qualitative data will add the voice of fellow educators to the statistical data gained during the initial phase of the study.

Creswell (2003) lists four criteria for choosing an appropriate mixed methods strategy. The criteria include implementation, priority, integration, and theoretical perspective. “Implementation means either that the researchers collect both the quantitative and qualitative data in phases (sequentially) or that they gather it at the same time (concurrently)” (p. 211). Priority dictates whether the weight will be given to the qualitative or the quantitative data. The researcher bases this decision on the research question(s) and the intended audience. The third criteria, integration, specifies at which stage in the research process the two types of data are mixed. This integration might occur while data are being collected, analyzed, or interpreted. It may also occur in more

than one stage. Finally, the researcher should decide if a “larger, theoretical perspective” is guiding the study (p. 213). For the purpose of this study, a sequential explanatory design with priority placed on the quantitative phase was used. Focusing on the purpose of the research and the intended audience, the researcher concluded that a sequential explanatory strategy was most appropriate. The researcher’s purpose was the same as the purpose of this strategy: “to use qualitative results to assist in explaining and interpreting the findings of a primarily quantitative study” (Creswell, 2003, p. 215). Within the current study, the researcher sought to measure quantitatively the effects of teacher training on the motivation of SWD. To explain these results further, qualitative data were collected from a focus group interview. Using the sequential explanatory design enabled the researcher to use the qualitative data gained from the focus group interview to add breadth and scope (Tashakkori & Teddlie, 1998) to the quantitative results.

Creswell (2003) stated sequential strategies, which also include transformative and exploratory, are those in which data are collected in phases. The decision to weight the quantitative or the qualitative more heavily “depends on the interests of the researcher, the audience for the study…, and what the investigator seeks to emphasize in the study” (p. 212). The researcher ruled out sequential transformative since its design gives priority to the theoretical perspective which “is more important in guiding the study than the use of methods alone” (p. 216). In the current study, quantitative data and analysis were given priority, thus sequential transformative was inappropriate.

Sequential exploratory was also rejected because priority in this model was given to the initial phase, which is qualitative. Further, the initial phase of data collection was

followed by an analysis phase. These results then informed data collection and analysis in the second phase. The present study differed in that it used the qualitative results from the second phase to "assist in explaining and interpreting the findings of a primarily quantitative study" (Creswell, 2003, p. 215).

Concurrent strategies are those in which equal priority is given to both sets of data; thus data are collected and analyzed simultaneously (Creswell, 2003). As stated previously, quantitative data were given priority in the current study. The researcher gathered baseline data from an inventory prior to implementing a treatment. The design of the current study required data collection in two separate phases instead of the simultaneous collection required in concurrent designs. For these reasons, the researcher rejected concurrent strategies.

Summary of Protection of Participants' Rights

Both qualitative and quantitative data obtained through this action research study will remain confidential. It did not include names of participants, or the names of the school, school system, or county. The researcher only identified the location of the study by its broad geographical location. A copy of the results of the study will be offered to all involved and will be a matter of public record upon completion.

.

SECTION 4: RESULTS

Introduction

The researcher employed a sequential explanatory mixed methods study to discover if teacher training and subsequent implementation of motivational strategies would have an effect on the intrinsic motivation of students with disabilities served in the general education setting. In this methodology, quantitative methods are typically given priority, as is the case in this study. The qualitative results garnered from the second phase of the study were used to explain or aid the interpretation of the quantitative results (Creswell, 2003). First, this chapter will present the quantitative data analysis from the pre and posttest administrations of the CAIMI. Next, it will present the data typologically analyzed from the focus group interview. Finally, the analysis will be integrated so that the qualitative data gained from the focus group interview will add breadth and scope (Tashakkori & Teddlie, 1998) to the quantitative results. The researcher will offer interpretations and support the findings with the data.

Quantitative Phase

Characteristics of Student Participants

Eighteen students were invited to participate in the study. They were students in the fourth and fifth grades at an elementary school in southeast Georgia. All 18 students were SWD who were served in the general education classroom 100% of the school day. The research assistant phoned parents of all students explaining the study and inviting them to allow their child to participate. The parents of three students declined

participation, and 15 fourth and fifth grade students participated in the initial administration of the CAIMI in March 2008. Three weeks before the end of the study, one of the fourth grade boys moved out of state and did not participate in the post administration; therefore, his baseline scores were removed from the data set. The remaining 14 students participated in the final administration of the CAIMI in May 2008.

The students ranged in age from 9 to 13 years. As shown in Table 3 the majority of the participants were boys and there were more fifth graders than fourth graders. The students represented Caucasian, African American, Hispanic, and multiracial ethnicities.

Table 3

Student Participants by Grade, Race, and Gender

	Fourth Grade		Fifth Grade	
Race	Male	Female	Male	Female
Caucasian	2		5	1
African American	2			2
Hispanic			1	
Multiracial	1			

The students also represented a range of disabilities. Participants were found eligible for special education services under the eligibility categories of autism, emotional behavioral disabled, expressive/receptive language impaired, hearing impaired, mildly intellectually disabled, and other health impaired (see Table 4).

Table 4

Student Participants by Grade and Disability

	Fourth Grade		Fifth Grade	
Disability	Male	Female	Male	Female
Autism	1		1	
Emotional/Behavioral Disabled			1	
Exp/Rec Language Impaired		1		
Hearing Impaired				1
Intellectually Disabled	1			2
Learning Disabled			3	
Other Health Impaired	2		1	

The researcher concedes that the sample size is small; however, the study was site-specific action research and all available students were asked to participate. Due to the small sample size, data analysis for this action research project was exploratory in nature. The results therefore can only be viewed as indicative of patterns and not conclusive in nature.

Data Gathering and Recording

Data for the quantitative phase of the study consisted of pre and post administrations of the CAIMI. The instrument was used to provide an answer to Research

Question 1: Will teacher training in motivational strategies and the subsequent implementation of these strategies have a positive effect on the intrinsic motivation of SWD in the general education classroom?

The CAIMI is a normed inventory which was specifically designed to assess intrinsic motivation in the basic subject areas of reading, math, social studies, science, and orientation toward school learning in general for students in Grades 4-8. It is a self-report inventory made up of 44 questions translating to 122 items between the five areas. Students respond to the items based on a 5-point Likert scale with choices ranging between *strongly agree* and *strongly disagree*. The last two items on the inventory force the student to choose between an intrinsic and nonintrinsic alternative for each of the four subject areas (Gottfried, 1986).

Following the return of the signed consent forms from students and parents (see Appendix F), the school psychologist administered the inventory March 17, 2008 in an unused classroom on the fifth grade wing of the school. She assigned each student a number 1 through 15 and then labeled each booklet with only the student's gender, grade level, and assigned number. The instrument was administered either individually or in small groups based on the student's level of academic functioning. The psychologist retained the list of identifying information until the follow-up administration.

During the last week of May, after the strategies had been implemented for a period of 9 weeks, the school psychologist readministered the CAIMI. Again, she labeled the booklets with the students' gender, grade level, and assigned number. This numbering procedure allowed the researcher to enter the raw data into the SPSS software so that the

scores could be compared after the 9 weeks of motivational strategies were completed. Based on the assigned numbers, the researcher entered each student's pre and posttest score into the SPSS software and then executed the paired samples test. The software computed the means, the mean difference, the standard deviation, standard error of the mean, the correlations, and the *t*-score for the data. Using Gravetter and Wallnau (2005) as a resource, the researcher interpreted the data with the charts produced by the software.

Teacher Training

"The proper question is not, 'how can people motivate others?' but rather, 'how can people create the conditions within which others will motivate themselves?'" (Deci & Flaste, 1995, p. 10). This statement was the impetus for the teacher training. Since the quantitative data consisted of the results of a pre and post administration of a motivational inventory after a treatment (implementation of strategies), the teacher training was an integral part of the quantitative phase of the study. The 90-minute training was conducted on a Wednesday, which is the school's extended workday. This day was chosen so teachers would not be taken from instructional time. The researcher delivered the information via an electronic slide show.

The researcher designed the training based on Atkinson's (1966) drive theory and Bandura's (1986) social cognitive theory. It began with a statement of the research purpose and problem and then briefly presented an overview of Atkinson's drive and Bandura's social cognitive theories. From that point, the training focused on practical strategies that, when put into practice, should help to create an environment in which

SWD would be intrinsically more motivated to participate despite their struggles. After the training, the teachers began implementing the strategies in their classrooms. The researcher also visited grade level meetings to answer questions and reminded the teachers of strategies three times per grade level during the 9 week period.

Keeping Track of the Data

The psychologist secured the CAIMI protocols in a locked filing cabinet between the pretest and posttest administrations. Following the testing, the psychologist destroyed the list of assigned numbers. After the school psychologist scored all protocols, she returned them to the researcher. The protocols were stored in a locked filing cabinet in the researcher's home office where they will be kept for five years. The reports generated by the SPSS software program are stored digitally in password-protected files on the researcher's home computer. Hard copies of this data were added to the protocols in the locked file drawer of the researcher's home office.

Data Analysis

As stated previously, the researcher used SPSS software to conduct the repeated-measures *t*-test and address the hypothesis for the quantitative phase of the study. The researcher chose this method to analyze the data gained from the 14 student participants because the same group of students was tested before the teachers were trained in the motivational intervention strategies and again after the strategies had been put into practice in the classroom for 9 weeks. Gravetter and Wallnau (2005) stated "The

repeated-measures design is especially well suited for studying learning, development, or other changes that take place over time" (p. 287). In addition, the design is used to measure mean differences between the same group of individuals over a period of time, which was the aim of the quantitative phase of the study.

The data collected were intended to help the researcher determine whether to accept the null or alternative hypotheses, which are as follows.

Null hypothesis: Teacher training in motivational strategies and the subsequent implementation of these strategies will have no effect on the intrinsic motivation of SWD in the general education classroom.

Alternative hypothesis: Teacher training in motivational strategies and the subsequent implementation of these strategies will have a positive effect on the intrinsic motivation of SWD in the general education classroom.

Quantitative Findings

The CAIMI examines intrinsic motivation and is divided into five subareas. These areas include reading, math, social studies, and science, and, general orientation toward school learning. This final category, labeled General by the instrument's author, provided the scores that the researcher analyzed to determine if the null hypothesis was true. This area was the only subarea used since Research Question 1 addresses intrinsic motivation in all areas instead of a specific subject.

Based on results garnered through the use of SPSS software (See Table 5), data analysis revealed there was no significant difference between the pre and posttest

administrations of the CAIMI. The researcher used a repeated-measures *t*-test to analyze the data. The critical regions with $df = 13$ and $\alpha = .05$ begin at +2.160 and -2.160 in the *t* distribution. The calculated *t* score did not fall outside the boundaries of the critical regions. Therefore, based on the CAIMI score in the General subarea, intrinsic motivation of SWD in the general education classroom did not increase with $t=1.426$, $p = .177$, $d = .199$. The researcher must fail to reject the null hypothesis at the .05 level of significance.

Table 5

Repeated-Measures t-Test

Subtest	Mean Difference	Standard Error Mean	*t*	Sig. (2-tailed)
General	4.714	3.306	1.426	.177

The SPSS software computed the means for the posttest and the pretest. As evidenced in Table 6, the mean for the posttest was the higher of the two statistics. In that the standard deviation of the post-test mean on the CAIMI was less than the pretest mean, these statistics suggest that intrinsic motivation was higher on the post-test and there was less variance in intrinsic motivation among the 14 student who were post-tested. In addition, the standard deviation for the posttest and pretest scores are rather large considering the standard error mean is 2.585 and 3.397 respectively. Gravetter and Wallnau stated (2005) “the primary disadvantage of a repeated-measures design is that the structure of the design allows for the possibility that factors other than the treatment

effect can cause a subject's score to change from one treatment to the next" (p. 288). The data provided by this sample were not sufficient to reject the null hypothesis. Therefore, it should be assumed that the treatment did not have an effect on the intrinsic motivation of the students. However, due to the small sample size and resulting standard errors, there is a possibility of a type II error.

Table 6

Paired Samples Statistics

	Mean	N	Standard Deviation	Standard Error Mean
Posttest	44.57	14	8.925	2.385
Pretest	39.86	14	12.709	3.397

Quantitative Phase Conclusion

Data analysis using the repeated-measures *t*-test did not show a significant difference when posttest scores were subtracted from pretest scores. It is possible that factors other than the treatment known as progressive error caused the students scores to increase or decrease which would affect the group mean difference (Gravetter & Wallnau, 2005). These factors could have included fatigue, boredom, disinterest, or other attitudinal causes. These scores and conclusions will be discussed in more depth in Section 5.

Qualitative Phase

The qualitative phase of the study consisted of a focus group interview. This interview was conducted to address Research Question 2: How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for SWD in inclusive classrooms? Following the training, implementation of the strategies by the teacher participants, and analysis of the quantitative data, a focus group interview was facilitated by the resesarch assistant to gain data that would explain the quantitative data.

Characteristics of Teacher Participants

All fourth and fifth grade teachers, a total of nine professionals, agreed to participate in the study after being contacted by the research assistant in early March. Each teacher signed a consent form (see Appendix G). The educators' teaching experience ranged from 2 to 16 years. Each taught one of the core subjects in either fourth or fifth grade at the research site.

Data Gathering and Recording

Guiding questions (see Appendix H) for the focus group interview were designed to answer Research Question 2: How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for SWD in inclusive classrooms? The researcher developed the questions with the research assistant.

The interview was held during the first day of postplanning in the schools conference room. The time, date, and location were agreed upon by the school principal, researcher, and the teacher participants. The researcher set up the room to ensure a comfortable setting. During this time, the audio equipment was tested and the researcher made sure comments would be recorded regardless of which chair the participants chose (Hatch, 2002). The researcher was not in the room during the interview so that the teacher participants could answer openly and honestly without feeling pressured to answer in a way that would please the researcher (Hatch, 2002). The guiding questions were e-mailed to the participants in advance so they could prepare for the session and would be at ease entering the interview situation.

Prior to the beginning of the focus group interview, the research assistant reminded the participants of the purpose of the research and that their answers were confidential. She also reminded them that the interview would be recorded and the tape would be kept in a secure location. She told them that they would be asked to read and verify the transcript when a hard copy became available.

Keeping Track of the Data

The focus group interview was recorded using a microcassette recorder. This recording was used by a transcriber (see Appendix I) to type the interview verbatim using a word-processing program. The transcription was then e-mailed to the researcher. Each interviewee received a hard copy of the transcript and was asked to read it for completeness, after which they were asked to sign, date, and return it to the researcher.

These hard copies of the transcript and the audio cassette are stored together in a locked filing cabinet in the researcher's home office. A digital copy of the transcript is in a password-protected file on the researcher's home computer.

Data Analysis

Hatch's (2002) plan for typological analysis was used to analyze the data garnered from the focus group interview. In accordance with this plan four typologies or categories were developed during the writing of the guiding questions. These typologies, based on "theory, common sense, and/or research objectives" (p. 152), were identified by the researcher as (a) motivation prior to teacher training, (b) motivation after teacher training and implementation, (c) relationship between training and practice, and (d) relationship between teacher training and levels of intrinsic motivation for SWD in inclusive settings.

After the interview was transcribed, the researcher read the data three times before coding. In accordance with Hatch's methodology, she then read the transcript once for each typology. With each reading, elements of the transcript were color coded according to the predetermined typologies. These typologies were summarized and read with the purpose of identifying themes and patterns. The researcher then made decisions about whether the themes and patterns were supported by the data. For each interview question, the researcher created a summary sheet (See Appendix J for sample summary sheet). From these summaries, patterns, themes, and generalizations were determined. Finally, the researcher searched the data for quotes that could be shared in the study which supported or refuted the themes (Hatch, 2002).

Findings

As the interview began, the research assistant asked each participant to paint a picture of what motivation was like among the SWD before intervention training. Without exception teachers reported motivation before intervention to be low. Students were inattentive, did not want to participate, and were not interested in the lesson. Two teachers reported students' misbehavior detailing how SWD would distract other students rather than working or participating in class. One teacher shared that her fifth grade SWD were "unmotivated and just kind of tried to blend into the background and not be noticed during class."

Two of the five fourth grade teachers specifically mentioned students were not completing homework or classwork on a regular basis. Four teachers reported students would use their disabilities as an excuse for not participating saying things such as "I can't do this, I need your help," "Do I have to," or "I can't read this." Three of the nine teachers perceived the students as having low self-esteem or low self-confidence. One fourth grade teacher had the following comment: "I noticed that the students with disabilities almost expected that it would be okay if they didn't participate at all… thinking they could slide on through without having to do the work."

Question 1

How do you feel intervention in motivational strategies impacted intrinsic motivation of SWD in your classroom?

Although the teachers mentioned different strategies, all teachers perceived the interventions impacted intrinsic motivation positively. They explained that their use of the strategies resulted in behaviors associated with intrinsic motivation such as engagement, risk taking, and beginning work before asking for help. Teachers stated that purposefully letting the students know they cared about and believed in them had a visible impact on intrinsic motivation.

One teacher stated that after the training she was more purposeful about communicating to the students that she cared about them. According to her comments, she began to express concern not only for their academics, but also their emotional well-being at school and away from school. She stated

> I got to know what they liked outside of the classroom and I was able to make connections to that in the classroom and I believe that did help with them being motivated to want to please me more. Through pleasing me, they learned how to please themselves and do well on their own without me.

Another teacher reported that the use of wait time had a great impact on the students in her classroom. The students were more patient with each other than she thought they would be when she employed this strategy. Her implementation of wait time coupled with their classmates' patience allowed the struggling students time to "actually come up with an answer without being embarrassed." Two colleagues agreed. One stated that she began to give cues instead of moving on to another student so they could began to experience success. Another stated that she believed the use of probing and other questioning techniques proved to the SWD that she had faith that they could be sucessful and that she would not give up on them. As a result, she felt the students began acting on

those beliefs. One stated, “They wanted to try on their own before they would come to an adult or the teacher to get assistance.”

Overall the teachers agreed that the students’ behaviors were positively affected when the teachers began to implement practices that communicated that they believed in the students and would not give up on them. One fourth grade teacher put it this way

> It was almost like a change would come over them, their whole demeanor would change. As soon as they started to struggle I’d say, ‘I know you can do this, I believe in you.’ Their whole little disposition would change.

Question 2

Would you please explain any changes you experienced in your individual practice after the training?

Most teachers spoke of the benefits of several strategies such as using a system to make sure all students were participating, letting students know that they were important and that the teacher believed in them, and the importance of wait time. However, analysis showed most teachers percieved the use of wait time appeared to make the biggest difference. They asserted that the use of wait time apparently sent the message to the students that they believed in the student’s ability to answer the question. Two teachers reported that their disposition during wait time served to set the stage for their students, noting that their relaxed state helped the class to wait more patiently. A fourth grade teacher noted,

> I would kind of assume a relaxed posture instead of just standing and waiting. I might sit on an empty desk, sit on top of the desk and dangle my foot or just be relaxed about it, and try to release some of the pressure.

However, two of the fifth grade teachers reported initial problems with wait time. These teachers agreed that before they modeled and explained the importance of wait time, peers of SWD were impatient and would blurt out answers. Both teachers stated it was difficult in the beginning, but the students began to participate when they realized the teacher would not move forward until they tried and that the teacher would support them as they tried to engage. One stated, "I have heard of wait time a lot, but I have always shied away from it because of our schedule and our time constraints in departmentalization, but you know, it works. It really does."

One fourth grade teacher reported that a practice she had used prior to the training has now been discarded due to the change she saw in her classroom after the training. Prior to the training she had allowed the struggling student to ask for help from a friend if he or she did not know an answer. Instead, now she has honed her questioning skills and cues the students to help them reach the answer. This sends the message that she believes the student is capable of participating without help from a fellow student. She states:

> Through this training I have learned even though I thought that [phone a friend] was such a cute idea and such a wonderful way for the child that didn't quite know the answer, I have learned that is it not the best way for children, and so I have abandoned the practice and I have now started spending more time probing and trying to make connections with the child about what we learned in the past to try to make them remember what I am trying to get from them at the moment.

Question 3.

Can you share a story of something that happened in class as a result of using the interventions?

Five of the nine teachers responded with a story. One of the fourth grade teachers spoke up to tell about a student who was unable to write. She reported that if he turned in an assignment, it was because the child dictated answers to either a paraprofessional or the teacher. He would continually say, “I can’t write” or “I can’t do this.” The last week of school the teacher reported that she was unable to help him with an assignment, but when she looked up, he had completed more than half of his assignment alone. She feels this is because the fourth grade teachers had been successful in communicating to the student that he could do the work and that they believed in him.

A fifth grade teacher shared that a student previously very shy and withdrawn would now work with partners to justfiy solutions to his mathematics problems. He no longer waited for the teacher to come to him, but worked through problems on his own. This student was recognized as the Most Improved Student at the fifth grade awards ceremony.

Another fourth grade teacher told of a student who always just stood and waited when she asked the class to find a partner or get in small groups. She stated,

> he would inevitably be left by himself at the end and I would have to find him a partner or group to be in, but after these interventions I found him walking around and trying to find a partner and find his group and fit in instead of waiting for me.

Still another spoke of a student who responded very positively when he realized that she (the teacher) believed in him. She reported “he just took a more active role in the classroom and would raise his and and was eager to participate and just came into my classroom with a much better attitude towards what we were doing and really showed an interest in what we were learning.”

Finally, one teacher shared the improved confidence of a student who typically shut down on a daily basis when asked to participate. The last week of school, the student volunteered to lead a review which meant he had to read the questions to the class and give the reason for which wrong answers were eliminated as viable choices. In the teacher's view the student risked quite a bit when he volunteered. "It was shocking. I was really impressed…and I let him know it at the end of class."

Question 4.

Of all the interventions, which one(s) do you feel had the most impact and why?

All teachers responded to the prompt. Of the nine teachers, six felt the most important strategy was the use of wait time. They stated that using wait time sent the message to the students that they were capable of successfully accomplishing a task or answering a question. Waiting for the students to work thorough a problem instead of moving on to another student sent the message that the teacher belived in the student. According to one teacher, the use of wait time "reinforced the idea that I believed in them and it built up their self esteem".

Three of the teachers agreed that getting to know the students and letting them know they cared on a personal level helped to communicate the idea, "I won't give up on you" (Saphier, 2005, p. 87). According to the teachers, this intervention made a big difference in some of the students' behavior and in the amount of effort the students put into their work. One of the teachers stated

> I feel like becoming more personal with the children helped them become more comfortable with me and were allowing me to help them a little bit

> better than they were before. I didn't get as much of the shutting down and turning away from me as I did at the beginning.

Another intervention teachers felt had a major impact was the use of probing and questioning. Linking prior successes to a current struggle helped the students realize they could arrive at the right answer if they would persevere. One of the fourth grade teachers shared "I felt every child in my classroom was successful because even if they gave the wrong answer I would guide them to the correct answer and at the end of the questioning they felt good about themselves." Two of the teachers also noted that there was a change in student attitude when the teacher communicated that what the students were learning was important.

One teacher's response to this question may show that she still sees motivation as something teachers do to students. She stated: "You have to be able to realize which motivators work best with certain kids. So I think that really all of them were great motivators for any classroom." Another teacher agreed, and stated "it is good to have a variety [of motivators] because they all have different needs." Although the focus of the discussion and the study was intrinsic motivation, these teachers are still struggling to see motivation as something that comes from within instead of something one person does to another.

Question 5.

A statistical analysis revealed no significant difference between the students' responses on an intrinsic motivation inventory when the researcher compared what students marked before the training to their responses after the training. Yet, as teachers,

you reported seeing a significant difference in behaviors that can be associated with intrinsic motivation across the board. What insight do you have into why this may be?

Only four of the nine teachers responded to the question. Their opinions on the contradictory perceptions were varied. Two teachers agreed that the students may not have fully understand how to respond to the items. One teacher added that students may have given the answer they felt the teacher researcher wanted to see. She stated,

> Knowing the kids that were involved in this study, I feel that they gave what they thought to be the 'right' answer, which would explain why their answers did not significantly change. I think maturity probably played a role in their willingness to answer truthfully because perhaps they are not ready to believe that 'there are no right answers' and that their answers are truly anonymous.

Another teacher agreed, but also stated that it could have been the time of the year. She explained that by the last week of school the students may have answered based on current motivation and not motivation overall. The same teacher stated that she would be interested "to see the results after a longer treatment time and during a more intense instructional time."

After sheepishly stating she was currently taking an educational psychology course, one teacher stated the explanation might be found in behavioral theory. She explained,

> The behaviors changed. What they feel internally, however, may not have changed. They still feel that they don't like to learn new things, for example, but in class, their behavior (say, taking part in an unfamiliar activity) showed us otherwise… Of course, we could also talk about self-efficacy. They may have experienced true change that was reflected in their behaviors, but they do not have enough confidence in themselves that these behaviors could be duplicated in other settings, classes, grades, and with different teachers.

In the end, the teachers never hinted that their perceptions of what they witnessed in the classroom could be the issue with the contradicting data. There may have been a gap in the teachers' ability to self reflect about their own classroom pedagogy as it impacts intrinsic and extrinsic motivation. As lifelong learners, "teachers should be engaged in the intellectual work of continuous learning through inquiry and reflection" (Katzenmeyer & Moller, 2001, p. 31). Instead of objectively looking at the data and reflecting on their possible roles in the discrepancy, they assumed it was probably the students' struggle with the instrument, the time of year, or the students' errant perceptions that explained the difference between what they (teachers) experienced in the classroom and the statistical results from the CAIMI.

Qualitative Phase Conclusions

Overwhelmingly the teachers reported positive outcomes after implementing the strategies for a 9 week period. They reported an increase in behaviors associated with intrinisc motivation such as trying assignments before asking for help, improved behavior, more academic engagement, and more of a willingness to take a risk. The research assistant ended the interview by summarizing that all of the interventions worked although they worked to varying degrees depending on the student, the teacher, and the subject. The teachers agreed. The analysis of the transcript shows the teachers benefited from the training and were able to see changes in their struggling students. They reported that they will continue to use the strategies.

When asked about the difference between their perceptions and data from the student inventory, teachers felt their perceptions were trustworthy and there were logical explanations for why the student's responses did not reflect the change. In addition, the analysis hinted that one teacher in the group may still struggle with the idea of intrinsic motivation. She stated, "you have to be able to realize which motivators work best with certain kids. Her comment revealed that she continues to see motivation as transitive, that is, something one person does to another.

Integration of Data

"The purpose of the sequential explanatory design typically is to use qualitative results to assist in explaining and interpreting the findings of a primarily quantitative study" (Creswell, 2003, p. 213). Not only did the researcher want to use the qualitative data to explain the quantitative, but she also wanted to add the teacher's voice to the findings. Social change will occur more readily when the teachers in the field perceive research results are significant and grounded in actual practice. To accomplish this, data from the two phases of the study are integrated during analysis. The researcher used focus group questions from the qualitative phase to explain the quantitative results and to add the perspective of the educators. In addition, though the quantitative data came from comparing group means, the researcher determined that to fully understand the inconsistencies in the data she should look beyond the repeated measure *t* statistic. Therefore, she examined individual protocols as well as a frequency chart constructed for

this purpose.The discussion that follows details how the two phases combined to address both the qualitative and the quantitative aspects of the study.

The students were asked to complete the CAIMI before and after the teachers implemented the strategies learned in the teacher training. All 18 items in the general orientation toward school learning domain on the CAIMI combined to give an overall picture of intrinsic motivation. These items covered aspects of intrinsic motivation such as attitude toward learning, interest in the learning environment, and perseverance. With this in mind, the guiding questions developed by the researcher and the research assistant were designed to ascertain the teachers' perceptions of these aspects of intrinsic motivation before and after the implementation of the strategies gained through the teacher training in order to add breadth and scope (Tashakkori & Teddlie, 1998) to the students' responses. The teachers' perceptions could best be understood by engaging the teachers in a focused discussion of learning behaviors exhibited by the students before and after the training and implementation of strategies.

In order to obtain a complete picture of any change in motivation, the focus group questions were similar to each other so that the participants had more than one opportunity to reflect upon and share their observations and insights (van Manen, 1990). The purpose of the focus group questions was to give the teachers an opportunity to describe the students' learning behaviors and the effect of the training on practice through specific examples. First, the research assistant asked each participant to paint a picture of the motivation of SWD in their classrooms before the training. Completing the CAIMI

required the students to rate their attitudes about learning. Since behavior stems from attitude, the teachers' responses could then be compared to the students' responses.

As reported earlier, the teachers' perceptions were similar. They stated that before the training and implementation of the strategies, SWD acted as if they were not expected to participate, they did not turn in homework, and some caused classroom disruptions. The teachers went on to share that the students had "extremely low self-esteem and no self-confidence." One teacher noted, "Before intervention, I noticed that many of the students with disabilities were unmotivated and just kind of tried to blend into the background and not be noticed during class." Another stated, "they tended to ask for help immediately without trying first, saying things like, "I can't read this. I need help."

The student's responses on the first administration of the CAIMI were inconsistent with the teacher's perceptions, but there were also inconsistencies between the students' responses on the inventory. For instance, nine of the fourteen students claimed to enjoy learning although the teachers' reported behaviors that were characteristic of just the opposite such as not turning in homework, not participating in the learning environment, and low self-confidence. In addition, although more than half claimed they enjoyed learning, 11 of the 14 stated that they would rather do easy work or work they have already mastered than challenging assignments, and most agreed that they did not enjoy working on material that was unfamiliar. These responses from the students are inconsistent since engaging in work that has been mastered is not learning. They can also be attributed to failure avoidance since students often attempt to avoid

failure by engaging in activities that are very easy or in which success is guaranteed (Weiner, 1974).

When asked, the teachers unanimously agreed that after the training learning behaviors associated with intrinsic motivation increased. The students were more apt to actively engage in learning, take academic risks, and begin working on grade level assignments without waiting or asking for help. One teacher shared, “they did a bit more independent work before they hasked for help.” She also told about the change in a very shy student.

> I had a student who was very shy at the beginning and just didn’t have a lot of confidence in himself. Later on towards the end of the year [after the strategies had been implemented] he would work with partners and they would come up with different answers and he would justtify his answer and work with his partner and say, “No, no you had to do this here and this is what you should be doing,” and he was more confident in himself and able to share with other people instead of just waiting for one of the teachers to come around to get him started and, you know, get him on the right track.

The students’ CAIMI responses to items measuring perseverance mirrored the teachers’ perceptions. When responding to three of the four items designed to measure academic perseverance, more than half of the students responded that they persevered until they reached understading. On the fourth item 7 of the 14 students agreed that they persevered while 4 students were neutral responding that they neither agreed or disagreed with the statement, “When I don’t understand a problem, I give up right away.” In addition, on two of the items which measured attitude toward school learning the majority of the students responded positively. The teachers’ observations of behaviors were in line with student attitude. If attitude is the basis for behavior the CAIMI

responses after the implementation of the strategies and the teachers' perceptions were consistent.

Another question asked of the teachers was to explain changes experienced in his or her individual practice after the training. The purpose of this question was twofold. First, it was intended to press the teachers to explore changes in individual practice that might explain the differences in their students' attitude about learning. The instrument asked the students to rate their agreement to items such as Item 6: "I try to learn more about something that I don't understand right away so that I will understand it" and Item 22 "When I don't understand a problem, I give up right away" (Gottfried, 1986). Other items on the CAIMI focused on enjoyment of school learning and interest in learning new material.

The mean differences in the students' pre and posttest scores were not significant which indicates that the students did not perceive a difference in intrinsic motivation. However, the teachers responded by sharing how the different strategies, such as the use of wait time, connecting past success to current struggle, and patterns of calling on students, changed the students' learning behavior. They spoke of how the students were more likely to take risks with challenging material, were more engaged in the learning process, and persevered when work was difficult. The teachers' observations and the students' scores on the CAIMI should have been consistent based on the changes observed by the teachers, but this was not the case. While the teachers reported a significant difference before and after the treatment, the students'ratings before and after the implementation of the strategies were very similar. For example, during the first

administration 9 of the 14 students marked that they Strongly Agreed or Agreed with “I try to learn more about something that I don’t understand right away so that I will understand it.” On the follow up administration of the CAIMI, 11 of the 14 students responded with Strongly Agree or Agree. Though there were marked differences in the teachers’ perceptions, the students responses were very similar on this item.

The second reason teachers were asked to explain changes experienced in his or her individual practice after the training was to gain data that would add the voice of the practitioners. The teachers described the positive change in their practice through examples from the classroom. They told of students who had not previously engaged in the learning process, but were now more comfortable taking risks. They shared how different strategies resulted in increased confidence for their SWD and how these students were now beginning to work without asking for help instead of saying, “I can’t read. I need help.” Most importantly for other educators is that the participants expressed an interest in continuing the practice because they felt strongly that it made a positive difference in the intrinisic motivation of their SWD.

The final question was asked to help explain why the results from the CAIMI ran contrary to theory. Simply stated, Albert Bandura’s self-efficacy theory asserts that one’s belief in his or her ability to succeed at a given task will determine motivation to attempt the task. The training was designed to equip teachers with the knowledge and skill needed to bolster the students’ belief that they were capable.

The research assistant asked the teachers to attempt to explain why their perceptions were vastly different from the students’ perceptions as demonstrated by the repeated

measures *t*-test. One teachers felt that the students were not capable of answering the Lykert-type items to accurately reflect their true attitudes, while another stated that the students may have answered the way he or she thought the researcher would want them to answer. The later explanation may carry some weight. As the raw scores were being entered into the SPSS software it was noted by the researcher that two students responded to all items with either Strongly Agree or Strongly Disagree during both administrations. In both cases, all responses were positive. It seemed apparent that these two students were answering the items in the way he or she thought the researcher would want.

Two of the teachers agreed that the students' actions and behavior in the classroom demonstrated that intrinsic motivation had increased, but that perhaps the students were so steeped in failure that they may not have realized the difference in only 9 weeks. As such, their CAIMI responses reflected their longstanding attitute toward learning, and not the new behavior. There may be some validity to this explanation. According to the participants individual profile sheets, 8 of the 14 showed no gains in intrinsic motivation based on percentile and standard deviation. The remaining six did show significant gain as evidenced by an increase of one or more standard deviations between the pre and postadministrations. During the interview however, the teachers spoke of positive change in all students. If these statements were unbiased and objective, the majority of the participants' profile forms should have shown significant gain in the area of intrinsic motivation instead of approximately half.

The data gleaned from the focus group interview confirmed that the teachers all agreed the students' learning behavior changed. However, the changes perceived by the

teachers did not translate into a significant mean difference between the pre and posttest scores of the CAIMI. Since the teachers all agreed that the students were more engaged in the learning process and they began to persevere during difficult assignments, the responses of the SWD on the CAIMI after the treatment should have reflected this change.

As discussed in Section 3 of this study, the author of the CAIMI demonstrated both reliabilty as well as construct and criterion-related validity. This researcher does not question the reliabilty and validity of the CAIMI in general. However, in the context of this study, the inferences drawn from the data of both phases reveal two separate perceptions of intrinisc motivation. “Confidence in the correctness of the inferences (i.e., internal validity) depends upon the presence or absence of alternative explanations for the findings” (Tashakkori & Teddlie, 1998, p. 84). Internal validity is threatened when “experimental procedures, treatments, or experiences of the participants” as well as “characteristics of the participants” inhibit the ability of the researcher to derive correct conclusions from the data (Creswell, 2003, p. 171). It is very possible that this was the case in the current study. The teachers and school psychologist agreed that the intellectual and emotional disabilities exhibited by the students may have hindered their ability to accurately rate the items on the CAIMI. A second threat occurred due to the timeframe of the study. These students have experienced difficulty in the classroom for several years and 9 weeks may not have been long enough to effect any significant change.

There is another possible explanation.The students responded to items on the CAIMI that were designed to measure intrinsic motivation from a general frame of

reference. The motivational strategies may not have been implemented equally among all teachers. Thus increases in intrinsic motivation as described by teachers who participated in the focus groups may be specific to their classes and not applicable to other teachers and classes in which the students attended. In responding to the items on the CAIMI, students may have interpreted the questions with a specific teacher's class or subject in mind as opposed to a general as the frame of reference.

The sequential explanatory design is especially useful when the quantitative results are contrary to expectations (Morse, as cited in Creswell, 2003). Such was the case for this study. According to the theories of Bandura and Atkinson, the student's intrinsic motivation should have increased. The students' responses did not provide evidence that the students as a group perceived an increase in intrinsic motivation. However, the teachers were undivided in their perceptions of positive change. Data integration helped to explain the inconsistency in the perspectives.

Finally, three major themes/generalizations emerged as supported by the data. These generalizations are listed below and will be discussed in detail in Section 5.

1. Based on the analysis of the data, teachers perceived training designed to help them create an intrinsically motivating environment for SWD in the general education classroom as beneficial.

2. Data revealed teachers noticed an increase in student behaviors associated with intrinsic motivation when they conveyed the messages "I believe in you," "I'm not going to give up on you," and "What we're doing here is important" (Saphier, 2005, p. 87).

3. Teachers felt their observations of student behaviors may be more reliable than students' own perceptions of their motivation.

Evidence of Quality

The data for this study were collected in two phases. The quantitative data were obtained from a pre and posttest administration of the CAIMI. Internal consistency, test-retest reliability, and validity of the instrument were established by the author and documented in the examiner's manual (Gottfried, 1986). Psychological Assessment Resources, Inc. requires the person administering the inventory be qualified in accordance with Standards for Educational and Psychological Testing; therefore, the researcher recruited the school psychologist to administer and score the inventory as she held the proper credentials.

For the qualitative phase of the study, the guiding questions were developed with the research assistant who holds a doctorate from Nova Southwestern University. The questions were then pilot tested with a team of five colleagues to ensure reliability. Slight modifications were made to the questions to ensure the focus group interview would yield the information needed to answer the research questions.

In addition, member checking was used to bolster the accuracy of the findings. Once the interview was completed, the participants were asked to read the transcript and verify it with a signature and date. The researcher followed up by asking each interview participant via phone call if any revisions were needed. There were none noted.

The research assistant and a trusted colleague served as peer-debriefers to enhance the credibility of the study. The research assistant earned a doctorate by completing required course work and a quantitative study. The colleague is a doctoral candidate whose research is qualitative. Both individuals worked candidly with the researcher to keep the interpretation honest. According to Tashakkori and Teddlie, this practice "contributes to the credibility of an inquiry by exposing the researcher to searching questions from the peer aimed at probing biases and clarifying interpretations" (1998, p. 91). The peer-debriefers asked "hard questions about methods, meanings, and interpretations" (Creswell, 1998, p. 202) as they read the rough draft, and subsequent revisions.

Limitations

A limitation in this action research study is researcher bias. The researcher is the special education teacher of many of the student participants and co-worker of the teacher participants. The researcher chose not to eliminate the bias, but decided to "identify them and monitor them as to how they may be shaping the collection and interpretation of data" (Merriam & Associates, 2002, p. 5). Accordingly, the researcher took steps to minimize bias as stated in the section above.

Another limitation was sample size. All 18 students at the research site were asked to participate. The parents of three students declined participation bringing the sample size down to 15. Of those, one student moved before the end of the year so that only 14 of the 15 students who participated in the pretest, also completed the posttest.

The results then can only be interpreted as indicative of patterns and not conclusive in nature.

Summary

This section contained the results of both the quantitative and qualitative phases of the mixed methods study. The quantitative analysis led the researcher to fail to reject the null hypothesis, which states: Teacher training in motivational strategies and the subsequent implementation of these strategies will have no effect on the intrinsic motivation of SWD in the general education classroom. The researcher concluded that the difference in the means was likely due to sampling error and a type II error may exist. In addition, progressive error may exist. Factors such as attitude, fatigue, or interpersonal relationship issues may account for the unexpected results.

At the same time, the anticipated findings for Research Question 2 were confirmed. They were: Teachers will experience a change in practice and notice higher levels of intrinsic motivation in SWD after implementing strategies presented in training. The results of the focus group interview showed that teachers perceived a positive relationship between teacher training in motivational intervention strategies and their teacher practice, and that the strategies resulted in increased student behaviors that are associated with intrinsic motivation for SWD in inclusive classrooms. The generalizations, relationship of findings to theory, implications for social change, and recommendations for further research will be included in Section 5.

SECTION 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Overview

The purpose of the study was to examine the effect of teacher training in motivational strategies on the intrinsic motivation of SWD in the general education setting. IDEA (2004) requires SWD to be educated in the least restrictive environment, while NCLB (2002) requires that these students meet minimum criteria on statewide testing by 2014. The problem is that SWD face more challenges and are often unmotivated to perform. Since motivation must come from within, the researcher was interested in exploring the effect of teacher training in creating an environment in which SWD would be intrinsically motivated to perform in the general education setting.

Research Questions

In order to address the problem, two research questions were posed:

1. Will teacher training in motivational strategies and the subsequent implementation of these strategies have a positive effect on the intrinsic motivation of SWD in the general education classroom?

2. How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for SWD in inclusive classrooms?

Review of the Methodology

A sequential explanatory mixed methods approach was selected to guide the research. Students with disabilities in Grades 4 and 5 who spent 100% of their day in the general education setting were asked to complete the CAIMI at the beginning of the study. The data from this inventory were used to measure intrinsic motivation in the subarea titled General, which measures motivational orientation toward learning in general.

Teachers were then trained on interventions based on Atkinson's (1966) drive theory and Bandura's (1986) social cognitive theory. The researcher designed the training to help teachers implement strategies in their classrooms that might create an environment in which students would be intrinsically motivated to achieve. Teachers put the interventions into practice for a period of 9 weeks. After this, the students again completed the CAIMI. The pre and posttest scores of the CAIMI were analyzed using a repeated-measures *t*-test. Based on the data analysis, the researcher failed to accept the null hypothesis: Teacher training in motivational strategies and the subsequent implementation of these strategies will have no effect on the intrinsic motivation of SWD in the general education classroom.

For the qualitative phase of the study, a focus group interview was conducted to answer Research Question 2: How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for students with disabilities in inclusive classrooms? A typological analysis revealed that the teachers perceived a positive correlation between the training and their

practice as well as an increase in behaviors associated with intrinsic motiavation for SWD in the general education setting.

Summary of Findings

Quantitative Phase

As discussed in Sections 3 and 4, the score from the CAIMI's Subarea General was the score used to accept or fail to reject the null hypothesis. As stated in Section 4, data analysis revealed no significant difference between the pre and posttest administrations of the CAIMI. The researcher used a repeated-measures *t*-test to analyze the data. The critical regions with $df = 13$ and $\alpha = .05$ begin at +2.160 and -2.160 in the *t* distribution. Therefore, the *t* scores do not fall outside the boundaries of the critical regions. Based on the CAIMI score in the General subarea, teacher training in the intrinsic motivation of SWD in the general education classroom was not effective with t (1.426), $p = .177$, $d = .199$. The researcher must fail to reject the null hypothesis at the .05 level of significance.

Qualitative Phase

The typographical data analysis yielded the data necessary to answer Research Question 2: How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for SWD in inclusive classrooms? The data from the focus group interview were built on four typographies identified before analysis began. They were (a) motivation prior to teacher training, (b) motivation after teacher training and implementation, (c) relationship

between training and practice, and (d) relationship between teacher training and levels of intrinsic motivation for SWD in inclusive settings.

The qualitative analysis revealed that there were significant changes in behaviors associated with intrinsic motivation before and after the study. When asked to paint a picture of what motivation was like before the training, teachers described students who did not care, tried to blend into the background, disrupted their peers, and made excuses for not participating. After the training, teachers were impressed with how students were more eager to participate, began assignments without waiting or asking for help, and took more risks. These behaviors are consistent with characteristics of intrinsic motivation. Ryan and Deci state that students who are intrinsically motivated are "moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards." They are "active, inquisitive, curious…and do not require extraneous incentives to do so" (2000a, p. 56). All teachers perceived an increase in intrinsic motivation and stated that their practice had changed as a result of the training.

When asked to explain why the changes in student behavior were not reflected in pre and postadministrations of the CAIMI, they had varying theories. One teacher's response was that the students marked what they felt the teacher wanted to see despite being assured that there were no right or wrong answers. Two of the students protocols may provide evidence that this was the case. These students responded to all items with either Strongly Agree or Strongly Disagree during both administrations. In both cases, all responses were positive indicating the highest degree of intrinsic motivation. Although these responses could have reflected the students' honest perceptions, it is plausible that

these the students were marking items to gain the researchers approval despite being assured that the inventories were anonymous.

Another teacher pointed to behavioral theory stating, “They may have experienced true change that was reflected in their behaviors, but they do not have enough confidence in themselves that these behaviors could be duplicated in other settings, classes, grades, and with different teachers.” This may be the reason for the discrepancy in perceptions, since over half of the individual profile sheets show that there was no change, either positive or negative, in the students’ intrinsic motivation.

Some felt the students may not have been capable of answering the Likert-type items accurately and still another that the strategies were implemented for too short a period of time. This teacher suggested that she would like to see the results after the students had participated in the strategies for a longer period.

Overall, the results show that while the student responses did not reveal the training and implementation of the strategies had an impact on intrinsic motivation, the teachers’ perceptions were that significant change took place. Although the behavioral changes may not be the result of a shift toward intrinsic motivation, the change was so positive that the teachers intend to continue using the practices and at least one teacher has abandoned a previous practice that conflicted with strategies learned in the training.

Interpretation of Findings

A sequential explanatory study was undertaken to answer two questions. Quantitative data from the CAIMI was used to answer the first question: Will teacher

training in motivational strategies and the subsequent implementation of these strategies have a positive effect on the intrinsic motivation of SWD in the general education classroom? A focus group interview produced the qualitative information needed to answer the second question, How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for SWD in inclusive classrooms? Two overarching themes were uncovered through the typological analysis. They were teacher practice and student behavior. These themes were then used to write one-sentence generalizations. The three generalizations that are supported by the data will be discussed below. They are

1. Teachers perceived training designed to create an environment more conducive to intrinsic motivation for SWD in the general education classroom as being beneficial.

2. Teachers noticed an increase in student behaviors associated with intrinsic motivation when they conveyed the messages “I believe in you,” “I’m not going to give up on you,” and “What we’re doing here is important” (Saphier, 2005 p. 87).

3. Teachers felt their perceptions of student behaviors may be more reliable than students’ perceptions of their own motivation.

The discussion that follows is organized by generalization. A full report of the findings can be found in Section 4 of this study.

Generalization 1

Based on the analysis of the data, teachers perceived the training designed to help them create an intrinsically motivating environment for SWD in the general education

classroom as beneficial. Without exception, the teachers reported that the training had an impact on the intrinsic motivation of their students. In reality, the teachers cannot state whether intrinsic motivation increased for these struggling students, but they can draw conclusions based on their observations. The data analysis revealed the teachers did observe a drastic change in their students' behavior after the training. Teachers perceived their training to be the impetus for the change in learning behaviors.

Theory and research support the notion that training in motivational techniques are beneficial for struggling students. Margolis and McCabe (2003) suggested teachers can bolster self-efficacy when they "recognize that low self-efficacy is not an immutable, global trait. Rather, it is a modifiable, task-specific set of beliefs" (p. 168). Their suggestions included linking new work to recent successes, offering explicit instruction in learning strategies, providing a collection of learning strategies from which the student can choose, teaching them to attribute success to effort, and assisting in the creation of goals that are personally significant. These suggestions were included as part of the training offered at the beginning of the study. As reported below, teachers noted the benefits of putting these suggestions into practice.

The primary idea that emerged from the data was the importance of sending the right messages to students. The teachers reported the benefits of conveying to the students in word and deed that they were capable, that the teacher believed they could achieve, and that the teacher would not give up on them (Saphier, 2005). One teacher stated,

> I was surprised at how powerful the statement was, 'I believe in you, I know you can do this.' It was almost like a change would come over them.

> Their whole attitude and their demeanor would change. As soon as they started to struggle, I said, 'I know you can do this, I believe in you.' Their whole little disposition would change and that's just a statement I plan on continuing to use because it really did work.

One segment of the training detailed the importance of calling on all students in addition to how to respond to the students. Most teachers spoke of using strategies to ensure all students participated. They also shared how they began to use cuing, questioning, and rewording the question to help students arrive at the right answer. The teachers commented on the link between these practices and conveying the message that students could achieve and they would be expected to do so. One teacher stated,

> They knew they were going to have to participate even if they didn't want to and I felt like every child in my classroom was successful because even if they gave the wrong answer, I would guide them to the correct answer and at the end of the questioning they felt good about themselves.

Teachers also reported using suggestions from the training for wait time and questioning that helped their students come to the right answer while they were supported through the struggle. As a result of the training, they learned to help students by linking prior learning to the current struggle. These practices led to a boost in self-confidence for the students. One teacher stated that the use of wait time "reinforced the idea that I believed in them and it built up their self esteem." Another teacher confessed that a practice she had previously used had now been abandoned because of the training. Prior to the training, when struggling students had trouble answering a question she gave them the option to "phone a friend." This practice allowed the student to ask another classmate to help answer the question. She now reports

> through her training we learned…that we should probe that child and try to get them to answer for themselves without asking a friend because once

> you do that the child thinks you have given up, and that they are dumb, and they don't know the answer, and you're moving on. … I have learned even though I thought that was such a cute idea and such a wonderful way for the child that didn't quite know the answer I have learned that it is not the best way for children. And so I have abandoned that practice and I have now started spending more time probing and trying to make connections with the child about what we have learned in the past to try to make them remember what I am trying to get from them at the moment. And I have also learned to reword those questions when the wording sounds a little too confusing and to just help the child come to the answer instead of just giving them the answer.

Linnenbrink and Pintrich (2003) asserted, "Student self-efficacy is inherently changeable and sensitive to contextual features of the classroom" (p. 136). Drawing on the literature of the past 20 years, they posit teachers can have a great impact on students' self-efficacy, which in turn will increase engagement and achievement. The teachers participating in the study, all stated they would continue to use the practice gained from the training. This would not have been the case had they not seen positive results from utilizing the strategies.

There still appeared to be a gap in understanding between extrinsic and intrinsic motivation. However, the researcher began to perceive a paradigm shift during the analysis of the qualitative data. The teachers' comments provided evidence that they were becoming more self-aware. While a couple of the comments showed that two of the teachers were still functioning under the notion that motivation is something that is done to a student, more were realizing that their practice could effect the environment in such a way that the student would motivate himself or herself to achieve.

Generalization 2

Data revealed teachers noticed an increase in student behaviors associated with intrinsic motivation when they conveyed the messages “I believe in you,” “I’m not going to give up on you,” and “What we’re doing here is important” (Saphier, 2005, p. 87). The teacher’s comments during the focus group interview resounded with positive change. They recognized the changes made in their practice were affecting the students’ behavior. There are distinct behavioral characteristics linked to intrinsic motivation. Students intrinsically motivated are “moved to act for the fun or challenge entailed rather than because of external prods, pressures, or rewards.” They are “active, inquisitive, curious…and do not require extraneous incentives to do so” (Ryan & Deci, 2000a, p. 56).

Conversely, students motivated to avoid failure tend to exhibit “effort withdrawal, procrastination, maintaining a state of disorganization, setting goals too high, goals too low, cheating, or asking for help” (Seifert, 2004, p. 146). These behaviors lead to more failure and more avoidance (Marzano, 2003). They simply cannot believe they have the ability to succeed. The data analysis revealed that before the training teachers predominately saw a lack of desire to participate, inattentiveness, or the students tried to blend into the background and not be noticed during class. One teacher reported student misbehavior during instruction. The students did not complete assignments or homework on a regular basis if at all. There were also frequent requests for help such as, “I can’t do this, I need your help” or excuses such as, “I can’t read this.” In addition, some procrastinated or tried to get out of doing assignments by asking, “Do I have to?” It is not

difficult to see that these behaviors could be categorized as failure avoidant based on the characteristics above.

When students are success oriented they tend to "persist at difficult problems and learn from their mistakes" (Seifert, 2004, p. 146). After teachers implemented strategies learned in training, student behavior was more indicative of the characteristics of students who are success oriented. The students began work without waiting for help from their teachers. A teacher told the story of a student who continually said, "I can't write" or "I can't do this." By the end of the training, the student was seen completing an assignment without asking for help. Another teacher relayed the example of a student who was typically shy, withdrawn, and known to shut down when called upon. Eight weeks into the study, the student risked embarrassment and volunteered to run a class review. Running the review meant that he would be required to read the question for the group and give the reason that two of the three answers choices were incorrect. The teacher stated,

> I was really impressed that he had the confidence to come up front to ask to volunteer, because the class normally cheers if they get ten out of the ten questions correct. So, he had that riding plus he wasn't really that outgoing in class; it was shocking.

Finally, perhaps the clearest example is the student who would previously shrink into the background and not work unless the teacher was with him. After the teacher changed her practice, the student would begin work independently and even initiated conversation with partners when their solutions to math problems differed. She reported overhearing the student trying to justify his methods and solution to a classmate. The

student was recognized as the Most Improved Student at the fifth grade awards ceremony.

The changes observed in student behavior are consistent with motivational theory. It is theorized that self-efficacy, which is the extent to which a student believes he or she has the ability to complete a task at a certain level of competence, is critical if intrinsic motivation is to be bolstered (Margolis & McCabe, 2003). Bandura (2003) believes this motivation has more to do with what the person believes he can do than in his actual ability to successfully complete the task or assignment.

The results of this study revealed a distinct change in behavior when teachers began delivering messages and using practice aimed at bolstering the students' beliefs in their ability. By calling on all students and sticking with them until they were able to answer teachers felt the students' self-confidence increased. This increase in self-confidence led to behaviors that included improved engagement during class, asking to be called on, beginning assignments before asking for help, and increased risk taking in academic situations. When students began to believe the messages delivered by their teachers, their behaviors reflected this belief.

The literature reviewed and summarized in Section 2 of this study is divided on the effect of including SWD in the general education classroom and its effect on motivation and academic achievement. However, the results of this study concur with the work of Garcia and de Caso (2004), Linnenbrink & Pintrich (2003), Peetsma et al (2001), and (Deci et al., 2001). Most literature reviewed on the subject appears to suggest that inclusion has a positive effect on the academic achievement of SWD (Cawley et al.,

2002; Daniel & King, 2001; Peetsma et al., 2001; Rea et al., 2002; Saint-Laurent et al., 1998) but that the positive effects on achievement are due to various factors, one of which is motivation. In particular, Daniel and King suggested inclusion in an environment that has compassionate educators, supportive peers, and bolsters self-esteem, and can be a powerful force for increasing motivation. Due to training, the teachers were able to begin creating an environment that met these criteria. As a result, the students' behavior changed from that typical of failure avoidant to behavior more closely resembling that of students who are success oriented.

Peetsma et al (2001), found more specialization and differentiation of academic content, may actually "lead to negative outcomes: less progress in mathematical skill, poorer school motivation and less self-confidence" (p. 133). Could this imply that more specialization and differentiation send the message that the student is not capable of working at the same level as his grade level peers? The current study was carried out in the general education classrooms because this is where students at the research site are expected to achieve. Because of their disabilities, the challenge to meet grade level standards served to motivate them to give up instead of persevere. Based on the data from the focus group interview, teachers perceived that the students' learning behaviors changed and that students were more confident because the teachers believed they were capable.

This idea is echoed in the results of a study completed by Rea et al. (2002). They studied the relationship of academic outcomes for SWD in both inclusive and pullout settings and found grades and standardized test scores were higher for those students

served in inclusive settings as compared to their peers in pullout settings. They posited the lower achievement for those in pullout models may be due to a weak curriculum, lower expectations, and negative student attitude resulting from the stigma of being removed from the general education classroom and their typically achieving peers.

Like the students in the Rea et al. (2002) study, students involved in the current study actually rose to the occasion when expectations were raised. Teachers reported higher grades, more assignments being turned in and genuine disappointment on the part of one student when he did not pass one portion of the state mandated test. It would not be unreasonable to think that the opposite results found in the study by Rea et al. were due to the unintentioned message sent by the school. Removal from the classroom and a subpar curriculum sent the message that the student was incapable of achieving.

The teachers participating in this study realized that their expectations made a difference for their students. They did not offer stickers or other extrinsic rewards; they simply expected the students' best effort and supported them as they worked to meet the standard. Delivering the messages outlined in the training appeared to increase the students' self-efficacy. This is important if students are to be intrinsically motivated to achieve, since lower self-efficacy beliefs influence "thought patterns and emotional reactions" (Pajares, 2002, Self Efficacy Beliefs, para. 10) thus becoming a self-fulfilling prophecy.

Generalization 3

Teachers felt their observations of student behaviors may be more reliable than students' own perceptions of their motivation. Based on the quantitative results of the CAIMI, student perceptions of their intrinsic motivation were markedly different from that of their teachers. The repeated-measures test revealed no significant difference between how the students rated their intrinsic motivation before and after the study.

Data from the focus group interview revealed several thoughts on why there was such a difference between the students' scores on the CAIMI and the teachers' perceptions. The first is supported by the drive theory of John Atkinson as well as comments of two of the teachers. First, Atkinson and Feather (1966) suggested that two drives compete in every individual: the drive to succeed and the drive to avoid failure. Though both drives compete, one will become habitual.

The students participating in the study have a history of failure. When students have a history of failure, they tend to act on that belief. Seifert (2004) stated that behaviors exhibited by failure avoidant students include "effort withdrawal, procrastination, maintaining a state of disorganization, setting goals too high, goals too low, cheating, or asking for help" (p. 146). During the focus group interview, the teachers reported that prior to the implementation of the strategies several of these behaviors were evident in their classrooms. They saw "lack of attention," students "shying away from answering questions", "incomplete assignments and homework," and the tendency of the students to "ask for help immediately without trying first." These types of behaviors are common place "because unless people believe that their actions can produce the

outcomes they desire, they have little incentive to act or to persevere in the face of difficulties" (Pajares, 2002, para. 14).

The students participating in the study were students in Grades 4 and 5. They had experienced several years of academic and emotional struggle but had spent only 9 weeks in the more motivating environment created by their teachers. They may have marked answers based on their history, rather than the present. One of the educators reasoned,

> The behaviors changed. What they feel internally, however, may not have changed. They still feel that they don't like to learn new things, for example, but in class, their behavior (say, taking part in an unfamiliar activity) showed us otherwise.

Likewise, two teachers' responses supported this assumption when asked about the difference between the students' scores and the teachers' perceptions. One teacher stated, "It [the difference] may have been because of the short amount of time during which they [the strategies] were implemented." The other stated, "They may have experienced true change that was reflected in their behaviors, but they do not have enough confidence in themselves that these behaviors could be duplicated in other settings, classes, grades, and with different teachers." The synthesis is that although the students were beginning to act on the belief that they were capable, they had not yet developed a sense of high self-efficacy, which produces feelings of competence and calmness. Low self-efficacy on the other hand will produce feelings of anxiety and ineptness (Bandura, 1986). Therefore, the difference in their scores and the teachers' perceptions could be explained by recognizing that 9 weeks is not enough time for students to begin acting on the belief that they can succeed, and to move from a failure-avoidant to a success-oriented state of mind.

Another teacher suggested that the difference could simply be that the students were unable to answer the types of items on the CAIMI to accurately reflect their perceptions. Some items on the CAIMI were stated in the negative. One item asked the student to rate an item stating he or she had a negative attitude toward learning. If the student wanted to convey a negative attitude toward learning, he or she would have to mark *strongly agree*, which is typically a positive response to state the negative. For students with disabilities, this thinking runs counterintuitive.

Lastly, one teacher supposed that the students might have responded the way they thought the researcher would want them to respond. She stated

> Knowing the kids that were involved in this study, I feel that they gave what they thought to be the "right" answer, which would explain why their answers did not significantly change. I think maturity probably played a role in their willingness to answer truthfully, because perhaps they are not ready to believe that there is no "right answer" and that their answers are truly anonymous.

One of her colleagues added the difference could be attributed to the fact that "they don't understand how to rate those things or maybe they don't see their own progress." While there is no evidence that these assumptions are correct, the teachers know their students and therefore the assumptions must be considered. If the students were unable to mark the items to accurately rate their intrinsic motivation, another instrument should be used for this population.

The teachers provided valuable insight into why the students' responses may not have been valid, but failed to consider the possibility that they may have played a part. Their responses to the final question show that they did not believe that action or inaction on their part might have been the reason for the inconsistency in the data. It was evident

that a gap may exist in the teachers' ability to self reflect about their practice as it affects intrinsic and extrinsic motivation.

Unlike other professions, teachers are now beginning to realize the benefit of working collaboratively. In the recent past they "were not expected to evaluate or adjust their lessons" (DuFour, Eaker, & DuFour, 2005, p. 141). Self reflection as well as collaborative analysis and reflection of teaching practice is vital if learning is to occur. Professional learning communities provide structure conducive to reflection and analysis of practice. This collaborative practice offers teachers the opportunity to engage in reflective conversations in order to acquire new knowledge, skills, and strategies and adjust their practice (DuFour et al., 2004). Although the teachers at the research site are involved in professional learning communities, they were not made aware of the discrepant data and given the opportunity to collaboratively reflect on reasons for the vast difference in perceptions during a weekly meeting.

Data Integration Summary

The final step in a sequential explanatory study is that of integrating the data so that the qualitative data explains the quantitative. The researcher used the guiding questions from the focus group interview to help explain the surprising results from the quantitative phase of the study. Theory should have dictated a positive change in intrinsic motivation after the teachers participated in the training and implemented the strategies in their classrooms. This, however, was not the case.

The focus group interview was added to the study so that the voice of the practitioners could be heard and the student responses on the CAIMI could be expounded upon. The guiding questions required the teachers to explain specific practices used and how their students responded to their change in practice. The responses of both the teachers and the students were compared in the integration phase of the study. These reports were in direct contrast to the students' perceptions if the results of the CAMI were valid.

Teachers described the motivation of their students before their training as lacking. The students did not complete homework or assignments and would rarely begin work without asking for help. Others would shrink into the background hoping they would not be noticed. The student responses on the first administration of the CAIMI however were not consistent with the teacher perceptions. In addition, the researcher noticed inconsistencies in the students responses to various items. For example, the students responded positively to items that asked if they liked learning, but the majority also agreed that they favored working on assignments they had mastered rather than new material.

The teachers also unanimously agreed that after the training they saw an increase in behaviors associated with intrinsic motivation. The students' responses to items agreed with the teachers at this point. The CAIMI measured attitude toward learning in general and the teachers reported on observed behaviors. If attitude is the foundation of behavior, the teachers' and students' perceptions were consistent.

There were two reasons for asking the teachers to explain changes in his or her practice following the training. First, it was hoped their explanations might provide the researcher with insight into the differences in the students' attitudes about learning. The teachers discussed the various strategies used and their perceptions of the effect on the students' behavior and motivation. Secondly, the researcher wanted to add the voice of the practitioner to the results of the study. The teachers' responses were so positive that all stated they would continue to use the practices. Such a strong endorsement is important for other teachers in the field.

The focus group responses to Question 5 held perhaps the best explanation for the surprising discrepancy between the quantitative and qualitative results. The research assistant asked the participants to speculate on why their perceptions of increased intrinsic motivation were not mirrored in the student responses on the CAIMI. As reported in Section 4, the mean difference of SWD responses to these items between the pre and post administrations of the CAIMI was not significant. However, the teachers all agreed that the change in practice made possible by the training had a significantly positive affect on the learning behavior of the students. This change was so positive that the teachers stated their intention to continue the practices after the study and one had already discontinued a practice previously used because it ran contrary to the principles of the training.

The researcher determined that while the instrument's author had in fact determined the reliability and validity of the CAIMI, there were internal validity issues due to the characteristics of this particular group of students, the time of year the study

was conducted, and the limited timeframe of the treatment. Because of these issues, the inferences drawn from the results must be viewed with caution.

Implications for Social Change

The significance of this study was initially presented in Section 1. The findings in Section 4 and interpretation of the findings in Section 5 will now ground the implications for social change for individual students, teachers, school administrators, and policy makers. The results revealed that while the students did not perceive a difference in their intrinsic motivation, the teachers saw a positive change in behaviors associated with intrinsic motivation. The need to find strategies to help these students achieve in the challenging environment of the general education classroom is not only felt by the classroom teachers, but also by school administrators and policy makers. NCLB holds educators and administrators accountable for the achievement of all students. At the same time, IDEA requires that individual SWD be held to the same high standard as their typically achieving peers. Because there is a clear link between intrinsic motivation, engagement, and achievement (Marzano, 2003) those being held accountable must find a way to overcome the hurdle of helping students become intrinsically motivated. Since this is not something that can be done to or for students, we must find a way to help the student take ownership of his or her learning.

The results of this study indicated that, from the teacher's point of view, training in motivational strategies gave them tools. These tools are not strategies to "do to" students, but rather to help them as educators to change the environment to one in which

their SWD are intrinsically motivated to achieve. They viewed the training as helpful and stated they would continue to use the strategies after the study was completed. The teachers reported seeing students more engaged, more confident, and more willing to take risks. They also saw an increase in grades and the number of assignments completed.

School administrators and policy makers at all levels should heed the results of this study. The demands of state and federal legislation will not change in the near future. Students, in spite of their disabilities will continue to be held accountable for meeting increasingly high standards in the same setting as their general education peers. What can change, and appears to make a difference based on the results of this study, is the environment of that setting. Implementing training which makes teachers aware of the difference in extrinsic and intrinsic motivation, and teaches them how to create an environment in which students will be motivated to learn will have positive implications for social change.

In order for teachers, school administrators, and policy makers at the state and local levels to benefit from the results of this study and further research in this area, results should be disseminated to teachers through on-going dialogue in professional learning communities and through mentors. The school administrators should take the message of what is happening in the trenches to policy makers who are in a position to effect change that will trickle down to the teachers in the field.

Recommendations for Action

This study was undertaken as action research. Mills (2003) stated action research is a four-stop process:

1. Identify an area of focus.
2. Collect data.
3. Analyze and interpret data.
4. Develop an action plan.

The first three steps of Mills' process were completed and detailed in this study. The following section outlines an action plan based on the interpreted data.

Teachers overwhelmingly saw an increase in behaviors associated with intrinsic motivation. They felt so positive about the change they stated they would continue the practices. One teacher has even abandoned a long-standing practice after the training because she realized it did more harm than good in the classroom. However, students' pre and post responses on the CAIMI did not show a gain in intrinsic motivation after the training. The following recommendations for action are suggested in the hope that students will begin to realize the same changes their teachers saw.

The training was held over a 90-minute period and then discussed briefly at bi-weekly grade level meetings. The teachers viewed the training and the results of the training as beneficial, an analysis of the data showed that although many strategies and ideas were offered in the training, the teachers focused on only a few. Perhaps it was too much to absorb in one training. The researcher suggests the training be an ongoing dialogue in professional learning communities instead of a "sit and get" training. Cibulka

and Nakayama (2000) define professional learning communities as “a group of educators committed to working together collaboratively as learners to improve achievement for all students in a school” (p.4). This type of community revolves around “job-embedded” learning which allows teachers to gather around an immediate problem. They engage in dialogue about new ways to solve the problem, and watch as peers model solutions to the identified problem (Valli & Hawley, 2002). It is possible that one 9 week period was not enough time to learn, implement, make all of the strategies part of the teachers’ practice.

In addition, exploring and implementing the strategies at the beginning rather than the end of the school year may be more effective. Making the training part of the schools improvement plan would accomplish this goal. The current study began on the first day of the last 9-week grading period for the school year. Two weeks into the grading period, high-stakes testing ensued. Instruction usually takes a turn after the testing. All standards have been covered, and teachers usually begin spending more time on culminating hands-on projects and the presentation of these projects. By incorporating the training into the school improvement plan and situating it in the setting of a professional learning community, teachers will have ample time and support to internalize and make more of the practices they found so beneficial a part of their everyday practice.

As stated in Section 2, Garcia and de Caso (2004) believe, and Gottfried et al. (2001) agree that motivation should be affected prior to age 12. Continuing to dialogue about strategies to create an environment conducive to learning especially in the face of struggle is critical at the elementary level. Foundational skills such as decoding, comprehension, number sense, and writing are developed during the first 6 years of a

child's school career. Student achievement and motivation go hand in hand. If students are to achieve, which is the ultimate goal of education, they must be motivated to learn.

Teachers in the field did perceive this training to have a positive effect on their practice and the intrinsic motivation of SWD in the general education classroom. However, this study with its training was only a springboard. The suggestions above come as a result of analyzing the data and researcher reflection. This study and the recommendations that sprang from it should inform future practice.

Researcher Reflections and Recommendations

Committing to a doctoral study is an enormous undertaking. There were many obstacles, but when the methodology was finally solidified, the researcher felt the results would be significant. However, as the study progressed and especially as the data were being analyzed, the researcher began to see how the study could have been stronger. Although the researcher feels that the results are noteworthy, it is the task of the responsible researcher to critically reflect on his or her work. This process will serve to help the researcher mature and provide insight so that any wishing to pursue this line of research can benefit from the identified weaknesses.

Sample Size

According to Gravetter and Wallnau (2005), "a sample is a set of individuals selected from a population, *usually* [italics added] intended to represent the population in a research study" (p. 120). For this study, the participants were not chosen to represent a

population, since the number would certainly have been too small. Rather because the foundation of the study is action research the participants were chosen because they were the group of students the teacher researcher wished to study.

Although the sample size was small, the entire population of SWD being served in the general education setting for 100% of their day at the research site was invited to participate. Of these 18 students, the parents of three students declined participation and one of the 15 students moved out of state before the study was completed. This left only 14 students that participated in the quantitative phase of the study. Since the study was action research, the sample size could not have been larger unless the number of SWD at the research site was larger.

Gravetter and Wallnau (2005) stated that sample size directly influences "how accurately the sample represents its population" (p. 159). The larger the sample, the more accurately the results will represent that of the population. However, generalization is not the optimal goal of action research. The primary goal of action research is for practitioners "in the teaching/learning environment to gather information about how their particular schools operate, how they teach, and how well their students learn (Mills, 2003, p. 5). It is true that larger sample sizes would increase the generalizability of the research results, but the "power of action research is not in its generalizability. It is in the *relevance* of the findings to the researcher or the audience of the research" (p. 90).

Still the small sample size could have been a factor in why the results did not show a significant difference between the pre and postadministration scores on the CAIMI. Because of the small number of participants, the results of this study should be

viewed as indicative, but not conclusive. It is the researcher's recommendation that the study move beyond action research and be implemented on a larger scale.

Control Group

According to the data gained from the repeated measures *t*-test, there was no significant difference in the scores of the students before and after the treatment. The introduction of a control group would have provided baseline information allowing the researcher to make a comparison between a group of participants in a teacher's classroom in which the strategies were implemented and students enrolled in classrooms without the implementation of the strategies (Gravetter & Wallnau, 2005).

Even though the possibilities of a stronger study existed, there were logistical hurdles inhibiting the use of a control group. First, it is difficult to convince Institutional Review Boards to allow a researcher to experiment with students who are not only under the age of 18, but also have disabilities. Both of these categories of individuals fall under those considered At Risk by this governing board. In addition, the project was action research, which limited the number of participants available to the researcher. The total number of SWD at the research site in fourth and fifth grade was only 18. There would not have been sufficient numbers of participants to divide the students into two groups. Finally, both the student and teacher participants were in a situation that proved difficult to introduce the use of a control group into the study. The 4^{th} and 5^{th} grades at the research site are departmentalized. All fourth grade teachers teach all of the fourth graders and the situation is the same for the fifth grade teachers and students. The

researcher had little choice but to conclude that the hurdles were significant enough to forgo the use of a control group at this time.

CAIMI

One of the critical decisions when designing the study was the choice of an instrument to measure the intrinsic motivation of the student participants. The researcher discovered the CAIMI after reviewing several motivational inventories during the planning phase of the study. At the time, it appeared that the CAIMI was the perfect instrument to measure intrinsic motivation for the student participants in the study. It met the criteria as it was specifically designed for students in grades 4 through 8, and it was also designed to measure academic intrinsic motivation.

The manual stated that the inventory is appropriate for students in grades 4-8 and "appropriate for children across a broad achievement range" (Gottfried, 1986, p. 5), however, it proved a complicated instrument for SWD to complete. The CAIMI was administered by a trained school psychologist in accordance with the requirements set forth in the manual. She gathered the students either individually or in small groups depending on the level of academic functioning. Despite these accommodations, the researcher and school psychologist agreed that the items on the inventory may have been too difficult for some students to answer appropriately. Some items were phrased negatively and students had a difficult time answering those questions since, in order to respond appropriately, the student had to reverse his thinking.

According to Creswell, internal validity can be threatened from circumstances, which “arise from the characteristics of the participants” (p. 171). Although the students all had disabilities their intelligence quotients ranged from 61 (Mildly Intellectually Disabled) to 130 (Gifted Borderline Genius). Not all of the students struggled due to low intellectual functioning. Some struggled because of emotional/behavioral or medical issues. All of these participant characteristics combined to be grounds for a serious internal validity threat with this instrument for this particular study.

The *t*-test statistics did not show a significant difference between the pre and postadministrations. This could be due to the use of the CAIMI with this particular group of students and not because the strategies did not have an effect on the student’s intrinsic motivation. Gottfried (1986) stated the CAIMI is appropriate for students with a wide range of ability levels. For this particular study with these students, the researcher and the school psychologist disagreed. Duplicating the study with another instrument or utilizing another method to measure the effect of intervention strategies on the intrinsic motivation on SWD is warranted.

Student Focus Group Interview

Since the data have been analyzed and synthesized, the researcher realized the role a student focus group interview could have played. The data from these groups may have changed the methodology, but valuable data would have been gained. The teachers perceived the changes in their practice precipitated by the training had a positive affect on

the students' intrinsic motivation. However, the student's responses to the CAIMI did not yield the same information.

Progressive error may account for the discrepancy. Gravetter and Wallnau (2005) stated a "primary disadvantage of a repeated-measures design is that the structure of the design allows for the possibility that factors other than the treatments effect can cause a subject's score to change from one treatment to the next" (p. 288). A focus group interview with the students could have provided the opportunity to explore the possibility of progressive error. Asking questions about how the students felt, what they thought about the CAIMI, and what effect the teachers' practice had on their feelings about school could have ruled out or caused the researcher to accept that progressive error existed.

The researcher could have gained useful insight from the students that was not possible from the statistical information gained from the CAIMI alone. She suggests further research should include a student focus group used either alone or in tandem with a quantitative measure to determine the effect of teacher training in motivational strategies on the intrinsic motivation of SWD in the general education setting.

Teacher Training

The training for this study was held in one afternoon over a 90-minute period at the beginning of the study. The researcher began the session by defining the problem, stating the significance of the study, and explaining the theoretical background. Afterwards, an electronic slideshow was used to share the strategies. The researcher

explained the seven arenas to deliver the “I believe in you,” “I’m not going to give up on you,” and “What we’re doing here is important” (Saphier, 2005 p. 87). These arenas were:

1. Patterns of calling on students
2. Responses to student answers
3. Giving help
4. Dealing with errors
5. Giving tasks and assignments
6. Offering feedback on student performance
7. Displaying tenacity (Saphier, 2005, pp. 90-93).

During the analysis of the focus group interview, it became evident that of the many strategies detailed within these seven arenas the teachers focused on only a few. The researcher did visit grade level meetings during the 9 weeks, she reminded the teachers of the strategies, and she offered to clarify any confusion.

Still, after analyzing the data, the researcher believes that any significant change in practice will take place over time. Perhaps the training material was too much to take in during one session. The researcher suggests the training be part of ongoing dialogue in a professional learning community instead of a “sit and get” training. Linnenbrink and Pintrich (2003) stated that “teacher’s own pedagogical knowledge and expertise will result in well-informed teacher practices” (p. 134) when combined with the implementation of research based strategies. As teachers have a chance to dialogue about the strategies, remind each other of what they learned, and offer suggestions for what

worked in their classrooms within the context of professional learning communities, their practice will evolve (Valli & Hawley, 2002).

In addition, exploring and beginning implementation of the strategies at the start rather than the end of the school year may be more productive. The study commenced immediately following IRB approval, which was the onset of the last grading period of the school year. During this time, high stakes testing took place. Also during this last grading period, teachers are more likely to use hands-on performance tasks for assessment since all standards have been covered prior to testing. Students are more relaxed and it is more difficult for teachers to keep students focused after the testing is completed. This year was no exception. The school year at the research site is divided into 4 nine-week periods. Implementing the strategies during the second and third nine-week grading periods when pressure to achieve is higher and students are more focused may yield more valid results.

In their article, Kozminsky and Kozminsky (2002) reported that teacher's must examine their own beliefs. They also included yearlong training for teachers as a part of their study. These practices were not a part of the current study. Even though the teachers in this study reported significant change in their students' learning behaviors, the time frame of one 9-week period in conjunction with a single 90-minute training session for the teachers could have short circuited the effects of the study. Writing the training into the school's improvement plan would accomplish this goal. This plan is a prescription for change based on the school's need. Making the training a part of the plan will ensure that it is addressed in a formal way and that teachers are accountable for its implementation.

Focus Group Guiding Questions

Guiding questions were written with the research assistant. The goal of the questions was to gain insight from teachers to answer Research Question 2: How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for students with disabilities in inclusive classrooms? As a novice researcher, the questions appeared to be adequate to gain the information needed. During the analysis phase, other questions came to mind. These questions would have allowed the researcher to probe the challenges that were faced during the implementation of strategies. Insight into these areas would give the researcher a more rounded view of the teacher's perceptions. Additional questions which might prove helpful include

1. Please list the strategies that you used?
2. How did students respond differently to the strategies?
3. What do attendance records for the SWD during the treatment period reveal?
4. How were discipline referrals for SWD affected?
5. Can you explain any challenges you faced while implementing the strategies?

Anonymous teacher survey

Although bias was addressed by having a research assistant facilitate the focus group interview, it is possible that some teachers represented themselves in a more positive light than appropriate for the research assistant's benefit. They may have answered the questions in a way that gave the impression they implemented the strategies

more than they actually did. It is also possible that the teachers' perceptions were wrong and they thought they implemented the strategies more often than they actually did. Adding an anonymous teacher survey for the teachers to complete after implementing the training would increase the strength of the study. This survey would allow teachers to anonymously rate the frequency and intensity of their participation.

Future studies should include a component designed to corroborate teacher participation. Due to researcher-perceived flaws in the current study, she was in a position to assume the teacher's participation. This information could be used as additional data to substantiate the results of the focus group interview.

Other Data Sources

The data collected from the students to answer Research Question 1 consisted only of the quantitative data from the CAIMI. Likewise, the data used to answer Research Question 2 were collected from a single focus group interview with the teacher participants. On further reflection, other readily available sources of data could have explained the statistical data gained from the CAIMI. It also could have provided insight and supported or refuted the teachers' reports of increased intrinsic motivation. These sources could include researcher observations, student work, progress monitoring data, discipline referrals, and attendance records.

The use of researcher observation could have provided valuable data for the frequency and intensity of the implementation of the strategies by the teachers as well as the students' behavior in response to the interventions. The teachers reported that

students who had previously been disruptive in the classroom were now participating. A review of discipline referrals and behavior logs would have served to substantiate these reports. Attendance records may have provided some insight into the students' feelings about being in the school environment. Students who feel successful are more likely to want to attend school regularly, while those who are not would rather avoid the source of their struggle (Seifert, 2004). Reviewing student work and progress monitoring data could have been a valuable tool for assessing the students' desire to persist and substantiate the teachers' claims that students were more willing to complete class work, and homework.

Using multiple sources of information is a way of strengthening internal validity and is commonly found in qualitative studies (Merriam & Associates, 2002). This study was designed to be a mixed methodological study and at that time, given the problem, that seemed best. In retrospect, the rich information available through multiple data sources, combined with the internal validity threat of the CAIMI combine to suggest that perhaps the most appropriate approach would have been qualitative. This wealth of information possible from multiple data sources may have been the best choice to inform practice and affect social change.

In spite of the weaknesses detailed above, the researcher still feels that the study yielded some valuable insight into what teachers can do to affect intrinsic motivation. There is certainly a need for more rigorous research and the researcher offered recommendations that would satisfy this need. Nevertheless, even with its deficiencies this study revealed that teachers perceived that changing their practice could have an

impact on their struggling students' intrinsic motivation. The teacher participants reported a willingness to continue using the strategies after the conclusion of the study. In addition, one of the teachers decided to give up previous practices that ran contrary to what she learned in the limited training. These reasons alone are evidence of the teachers' perceptions of the training's effectiveness.

Conclusion

At the research site and many other schools across the nation since the advent of NCLB, struggling learners are at the center of much professional dialogue. Failing to meet standards, this subgroup can prevent a school from making AYP, which places the school in danger of being placed on a list of failing schools. Many interventions are used and many more are proposed to increase the achievement of students with disabilities. Taylor and Adelman make it clear that no matter which interventions are chosen "it is essential that they [researchers] focus on motivation as a primary intervention concern" (Taylor & Adelman, 1999, p. 274).

Motivation is a much-misunderstood construct. Whether from the pressures of NCLB or because an individual is a master teacher who truly wants to make a difference, teachers struggle with unmotivated students. The question of how to motivate students is the subject of many conversations when a child is struggling.

> The question so many people ask… "How do I motivate people to learn? to work? to do their chores? or to take their medicine?" – are the wrong questions. They are wrong because they imply that motivation is something that gets done to people rather than something that people do. (Deci & Flaste, 1995, p. 21)

The idea that motivation is transitive – that it is something we do to students must be challenged. Tangible rewards such as pizza, stickers, and coupons redeemable for no homework are common practice in schools. Viewing these rewards as motivators, teachers use them as currency to buy engagement. However, these extrinsic rewards have actually been shown to decrease intrinsic motivation (Deci et al., 2001). Intrinsic motivation is vital to engagement, which is linked to student achievement (Marzano, 2003).

Jonathan Saphier (2005) believes teacher behavior can have a tremendous affect on student motivation and achievement. He states,

> 'effort-based ability'…is the belief that all students can do rigorous academic work at high standards, even if they are far behind academically and need a significant amount of time to catch up. Educators who carry this belief into their practice are not unrealistic about the obstacles they and their students face. They simply have not given up. And we know for sure that they will get results if they translate this belief into appropriate practice. (p. 86)

The results Saphier spoke of, like the results from this study could have SWD taking risks instead of trying to blend into the background, begging to be called on instead of shying away from answering questions, and stating "I'm doing my assignment!" instead of "I can't!

REFERENCES

Atkinson, J. W., & Feather, N. T. (1966). *A theory of achievement motivation.* New York: John Wiley & Sons.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A., Caprara, G. V., Barbaranelli, C., Gerbino, M., & Pastorelli, C. (2003). Role of affective self-regulatory efficacy in diverse spheres of psychosocial functioning. *Child Development, 74*(3), 769-782.

Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology, 41*(3), 586-598.

Boscolo, P., & Gelati, C. (2008). Motivating reluctant students to write: Suggestions and caveats. *Insights on Learning Disabilities, 5*(2), 61-74.

Cawley, J., Hayden, S., Cade, E., & Baker-Kroczynski, S. (2002). Including students with disabilities into the general education science classroom. *Exceptional Children, 68*(4), 423-436.

Cibulka, J. & Nakayama, M. (2000). *Practitioner's guide to learning communities: Creation of high-performance schools through organizational and individual learning.* (Rep. No. SP 039 716). Office of Educational Research and Improvement.

Cochran-Smith, M., & Lytle, S. L. (2001). Beyond certainty: Taking an inquiry stance. In A Lieberman & L. Miller (Eds.), *Teachers caught in the action: Professional development that matters* (pp. 45-58). New York: Teachers College Press.

Collins, K. M. T., Onwuegbuzie, A. J., & Sutton, I. L. (2006). A model incorporating the rationale and purpose for conducting mixed-methods research in special education and beyond. *Learning Disabilities: A Contemporary Journal, 4*(1), 67-100.

Cortiella, C. (2006). *NCLB and IDEA: What parents of students with disabilities need to know and do.* University of Minnesota, National Center on Educational Outcomes.

Covington, M. V., & Beery, R. G. (1976). *Self-worth and school learning*. New York: Holt, Rinehart & Winston.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. (2nd ed.) Thousand Oaks, CA: Sage Publications.

Dana, N. F., & Yendol-Silva, D. (2003). *The reflective educator's guide to classroom research*. Thousand Oaks, CA: Corwin Press.

Daniel, L. G., & King, D. A. (2001). Impact of inclusion education on academic achievement, student behavior and self-esteem, and parental attitudes. *Journal of Educational Research, 91*(2), 67-80.

Dantonio, M. (2001). *Collegial coaching: Inquiry into the teaching self*. (2nd ed.) Bloomington, IN: Phi Delta Kappa.

Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology, 18*(1), 105-115.

Deci, E. L. (1972). Intrinsic motivation, extrinsic reinforcement, and inequity. *Journal of Personality and Social Psychology, 22*(1), 113-120.

Deci, E. L., Koestner, R., & Ryan, R. (2001). Extrinsic rewards and intrinsic motivation in education: Reconsidered once again. *Review of Educational Research, 71*(1), 1-27.

Deci, E. L., & Flaste, R. (1995). *Why we do what we do: Understanding self-motivation*. New York: Penguin Books.

DuFour, R., DuFour, R., Eaker, R., & Karhanek, G. (2004). *Whatever it takes: How professional learning communities respond when kids don't learn*. Bloomington, IN: National Education Service.

DuFour, R., Eaker, R., & DuFour, R. E. (2005). *On common ground: The power of professional learning communities*. Bloomington, IN: Solution Tree.

Fuchs, D., & Fuchs, L. S. (1994). Sometimes Separate Is Better. *Educational Leadership, 52*(4), 22-26.

Garcia, J., & de Caso, A. M. (2004). Effects of a motivational intervention for improving the writing of children with learning disabilities. *Learning Disabilities Quarterly, 27*(Summer), 141-159.

Georgia Department of Education (2008). Frequently asked questions regarding LRE.http://www.doe.k12.ga.us/ci_exceptional.aspx?PageReq=CIEXLREFAQ.

Georgia Department of Education, Office of Exceptional Students (2007). Georgia department of education state performance plan: Improvement initiatives and activities. Retrieved from http://public.doe.k12.ga.us/ci_exceptional.aspx?PageReq=CIEXCStatePlan.

Gottfried, A. E. (1986). *Children's academic intrinsic motivation inventory*. Odessa, FL: Psychological Assessment Resources.

Gottfried, A. E., Fleming, J. S., & Gottfried, A. W. (2001). Continuity of academic intrinsic motivation from childhood through adolescence: A longitudinal study. *Journal of Educational Psychology, 93*(1), 3-13.

Gravetter, F. J., & Wallnau, L. B. (2005). *Essentials of statistics for the behavioral sciences*. Belmont, CA: Wadsworth/Thomson Learning.

Grolnick, W. S., & Ryan, R. M. (1990). Self-perceptions, motivation, and adjustment in children with learning disabilities: A multiple group comparison study. *Journal of Learning Disabilities, 23*(3), 177-184.

Guisbond, L., & Neill, M. (2007). Failing our Children: No child left behind undermines quality and equity in education. *Clearing House, 78*(1), 12-16.

Handler, B. R. (2006). Two acts, one goal: Meeting the shared vision of no child left behind and individuals with disabilities education improvement act of 2004. *Clearing House: A Journal of Educational Strategies, Issues and Ideas, 80*(1), 5-8.

Hatch, A. J. (2002). *Doing qualitative research in education settings*. State University of New York Press.

Hockenbury, J. C., Kauffman, J. M., & Hallahan, D. P. (2000). What is right about special education. *Exceptionality, 8*(1), 3-11.

Jennings, J. E. (2002). *A Timely IDEA: Rethinking Federal Education Programs for Children with Disabilities.* (Rep. No. ED466075).

Katzenmeyer, M., & Moller, G. (2001). *Awakening the sleeping giant: Helping teachers develop as leaders*. (2nd ed.) Thousand Oaks, CA: Corwin Press.

Kozminsky, E., & Kozminsky, L. (2002). The dialogue page: Teacher and student dialogues to improve learning motivation. *Intervention in School & Clinic, 38*(2), 88-95.

Lackaye, T. D., & Margalit, M. (2006). Comparisons of achievement, effort, and self-perceptions among students with learning disabilities and their peers from different achievement groups. *Journal of Learning Disabilities, 39*(5), 432-446.

Linnenbrink, E. A., & Pintrich, P. R. (2003). The role of self-efficacy beliefs in student engagement and learning in the classroom. *Reading and Writing Quarterly, 19*(2), 119-238.

Logsdon, Ann (2007).Retrieved from http://learningdisabilities.about.com/od/publicschoolprograms/g/iepdefinition.htm .

Margolis, H., & McCabe, P. P. (2003). Self-efficacy: A key to improving the motivation of struggling learners. *Preventing School Failure, 47*(4), 162-169.

Marston, D. (1996). A comparison of inclusion only, pull-out only, and combined service models for students with mild disabilities. *The Journal of Special Education, 30*(2), 121-132.

Marzano, R. J. (2003). *What works in schools: Translating research into action.* Alexandria, VA: Association for Supervision and Curriculum Development.

Marzillier, J., & Eastman, C. (1984). Continuing problems with self-efficacy theory: A reply to Bandura. *Cognitive Therapy and Research, 8*(3), 257-262.

McCabe, P. P. (2006). Convincing students they can learn to read: Crafting self-efficacy prompts. *Educational Psychology, 79*(6), 252-257.

McLeskey, J., & Henry, D. (1999). Inclusion of students with learning disabilities: An examination of data from Reports to Congress. *Exceptional Children, 68*(1), 55-67.

Meichenbaum, D. H. (1990). Paying homage: Providing challenges. *Psychological Inquiry, 1*(1), 96-100.

Merriam, S. B., & Associates (2002). *Qualitative research in practice: Examples for discussion and analysis*. San Francisco: Jossey-Bass.

Mills, G. E. (2003). *Action research: A guide for the teacher researcher*. (2nd ed.) Upper Saddle River, NJ: Merrill Prentice Hall.

Naccarato, R. (1988). *Assessing learning motivation: A consumer's guide.* (Rep. No. ED297027).

O'Connor, J. L., & Williams, L. C. (2006). *Students with disabilities can make AYP: What every school leader should know*. Atlanta, GA: Georgia Department of Education.

Pajares, F. (2002). Overview of social cognitive theory and of self-efficacy. Retrieved from http://www.emory.edu/EDUCATION/mfp/eff.html.

Peetsma, T., Vergeer, M., Roeleveld, J., & Karsten, S. (2001). Inclusion in education: Comparing pupils' development in special and regular education. *Educational Review, 53*(2), 125-135.

Rea, P. J., McLaughlin, V., & Walther-Thomas, C. (2002). Outcomes for students with learning disabilities in inclusive and pullout programs. *Exceptional Children, 68*(2), 203-222.

Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25* 54-67.

Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78.

Saint-Laurent, L., Dionne, J., Giasson, J., Royer, E., Simard, C. et al. (1998). Academic achievement effects of an in-class model on students with and without disabilities. *Exceptional Children, 64*(2), 239-253.

Saphier, J. (2005). Masters of motivation. In R. DuFour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp. 85-113). Bloomington, IN: Solution Tree.

Schunk, D. H. (2003). Self-efficacy for reading and writing: Influence of modeling, goal setting, and self-evaluation. *Reading and Writing Quarterly, 19*(2), 159-172.

Seifert, T. L. (2004). Understanding student motivation. *Educational Research, 46*(2), 137-149.

Simon, S. (2001). *From Neo-Behaviorism to Social Constructivism?: The paradigmatic non-evolution of Albert Bandura.*

Stiller, J. D. & Ryan, R. M. (1992). *Teachers, parents, and student motivation: The*

effects of involvement and autonomy support. (Rep. No. ED348759).

Stringer, E. T. (1999). *Action research*. Thousand Oaks, CA: Sage.

Tashakkori, A., & Teddlie, C. (2003). *Handbook of mixed methods in social & behavioral research*. Thousand Oaks, CA: Sage Publications.

Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage Publications.

Taylor, L., & Adelman, H. S. (1999). Personalizing classroom instruction to account for motivational and developmental differences. *Reading & Writing Quarterly, 15* 255-276.

Valli, L., & Hawley, W. D. (2002). Designing and implementing school-based professional development. In W. D. Hawley & D. L. Rollie (Eds.), *The keys to effective schools: Educational reform as a continuous improvement* (pp. 86-96). Thousand Oaks, CA: Corwin Press, Inc.

van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. Albany, NY: State University of New York Press.

Vaughn, S., Elbaum, B., Schumm, J. S., & Hughes, M. T. (1998). Social outcomes for students with and without learning disabilities in inclusive classrooms. *Journal of Learning Disabilities, 31*(5), 428-437.

Weiner, B. (1974). *Cognitive views of human motivation.* New York: Academic Press.

APPENDIX A:

PERMISSION TO USE CAIMI

PAR
Psychological Assessment Resources
16204 N. FLORIDA AVENUE
LUTZ, FLORIDA 33549
Tel: (813) 968-3003
Fax: (813) 968-2598
www.parinc.com

Sent Via Email: bev@whitestonemedia.com

February 11, 2008

Beverly S. Faircloth
Walden University
418 Club Drive
Hinesville, GA 31313

Dear Ms. Faircloth:

In response to your recent request, permission is hereby granted to you to include questions 6, 22, and 31 from the Children's Academic Intrinsic Motivation Inventory (CAIMI) Test Booklet in the text of your dissertation titled, *Intrinsic Motivation of Students with Disabilities in the General Education Setting: What Teachers Should Know and be Able to Do*. Permission is also granted for you to include Table A2 and Table A4 from the appendix of the CAIMI Professional Manual in the text or appendix of your dissertation.

This Agreement is subject to the following restrictions:

(1) The following credit line will be placed at the bottom of the verso title or similar front page on any and all material used:

"Reproduced by special permission of the Publisher, Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, Florida 33549 from the Children's Academic Intrinsic Motivation Inventory by Adele E. Gottfied, Ph.D., Copyright 1986. Further reproduction is prohibited without permission of PAR."

(2) None of the material may be sold, given away, or used for purposes other than those described above.

(3) Payment of a permission fee will be waived.

(4) One copy of any of the material reproduced will be sent to the Publisher to indicate that the proper credit line has been used.

TWO COPIES of this Permission Agreement should be signed and returned to me to indicate your agreement with the above restrictions. I will return a fully executed copy of the Agreement to you for your records.

Sincerely,

Vicki M. Mark
Permissions Specialist
vmark@parinc.com
1-800-331-8378 (phone)
1-800-727-9329 (fax)

ACCEPTED AND AGREED:

BY: Beverly Faircloth
BEVERLY FAIRCLOTH

DATE: 2/12/08

ACCEPTED AND AGREED:

BY: Vicki M Mark
VICKI MARK

DATE: Feb. 14, 2008

APPENDIX B:

CONFIDENTIALITY AGREEMENT

Name of Signer: J. C. W., Ed.D.

During the course of my activity in collecting data for this research:

"Intrinsic Motivation of Students with Disabilities in the General Education Setting: What Teachers Should Know and Be Able to Do"

I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: J. C. W. **Date: 2/8/08**

APPENDIX C:

CONFIDENTIALITY AGREEMENT

Name of Signer: J. B. R., Ed.S.

During the course of my activity in collecting data for this research:

"Intrinsic Motivation of Students with Disabilities in the General Education Setting:

What Teachers Should Know and Be Able to Do"

I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement I acknowledge and agree that:

8. I will not disclose or discuss any confidential information with others, including friends or family.
9. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
10. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
11. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
12. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
13. I understand that violation of this agreement will have legal implications.
14. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: J.B. R., Ed.S. Date: February 9, 2008

APPENDIX D:

RAW DATA - CAIMI

Student	Pretest	Posttest
1	31	31
2	20	40
3	20	48
4	66	51
5	44	54
6	54	52
7	52	48
8	38	52
9	48	49
10	39	31
11	40	36
12	34	56
13	41	44
14	31	32

APPENDIX E:

TEACHER TRAINING

Intrinsic Motivation of Students with Disabilities in the General Education Setting:
What Teachers Should Know and Be Able to Do

Teacher Training
Beverly Stinson Faircloth
3-17-08

What teachers should know...

1

"The proper question is not, ***'how can people*** *[teachers]* ***motivate others?'*** but rather, ***'how can people*** *[teachers]* ***create the conditions within which others*** *[students]* ***will motivate themselves?'"***

(Deci & Flaste, 1995, p. 10)

2

Theoretical Framework

Atkinson (1966)

Drive theory suggests two drives compete in every individual. The drive to succeed and the drive to avoid failure.

Although they two drives operate simultaneously, one will win out over time and will influence attitude and motivation whenever challenges are faced.

Bandura (1986)

Social cognitive theory of self-efficacy is defined as an individual's belief in his / her ability to succeed at a given task. This belief will determine motivation to attempt that task.

Students with a history of success act on the belief that they are capable when THEY ARE MAKING THE DECISION TO ENGAGE in a challenging task and will behave accordingly.

3

In a nutshell...

Students with high self-efficacy look at difficult tasks as challenges to be overcome---

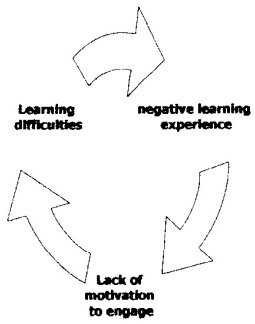
Those with low self-efficacy approach challenging tasks as situations to be avoided.

4

All Students are Motivated

We want them to be motivated to work toward success even when school work is difficult...How do we accomplish this?

5



"Struggling learners' with low self-efficacy must succeed on the very type of tasks they expect to fail....

Work should challenge rather than frustrate them...it should strengthen expectations of success rather than failure" (Margolis and McCabe, 2003).

6

There is hope!

Low self-efficacy is not an absolute characteristic. On the contrary, it is a "modifiable, task-specific set of beliefs derived largely from frequent failures"

There are ways to change low self-efficacy to high-self efficacy.

7

EFFORT BASED ABILITY

- **What we're doing here is important.**
- **You can do it.**
- **I won't give up on you (even if you give up on yourself)**
- (Saphier, 2005, p. 86).

8

Seven arenas for message "delivery"

- **Patterns of calling on students**
- **Responses to student answers**
- **Giving help**
- **Dealing with errors**
- **Giving tasks and assignments**
- **Offering feedback on student performance**
- **Displaying tenacity (Saphier, 2005)**

9

What teachers should be able to do...

10

Patterns of calling on students

- Call on all students
- Do not 'dumb down' questions or the demand for thinking

11

Responding to Student Answers

- **How safe is the environment?**
- **Is it safe to take a risk?**

- **Stay focused on 'the' student**
  - **~cuing**
  - **~wait-time**
  - **~give confidence**
  - **~reword question**
  - **~validate what's right**
  - **~ask student to explain thinking**

12

Giving Help

- **Be careful when offering unsolicited help.**
  - **Some will be embarrassed**
  - **Some will feel they didn't get help because the teacher doesn't believe they could do it anyway** (McCabe, 2006, p. 256).
- **Connect prior learning to current confusion.**

13

Dealing with Errors

- Preserve student dignity:

"That's not correct, but I'm glad you said that because others may be thinking the same thing" (Saphier, 2005, p. 92).

14

Giving Tasks and Assignments

- **Acknowledge difficulty when appropriate**
- **Students must have a clear idea of the focus of the assignment**
- **Ensure tasks are within the child's Zone of Proximal Development – the difference between what a child can already do alone and what he can do with help from a more competent person**

15

Offering Feedback on Student Performance

- Non-judgmental
- Useful for correcting or improving work
- Progress records should be made available to students

16

Offering Feedback on Student Performance

- Help students set personally important goals based on feedback and give feedback on progress toward goals
- (McCabe, 2003; Shunk, 2003).
- Help students recognize their own learning style/strength (Beckman, 2001, p. 4)

17

Displaying Tenacity

- **Follow up with students who are confused, late with work, "unmotivated", need encouragement, etc.**

"How did you do on that math test?"

"You do have your science study guide with you, right?"

"How are you coming with that AR book?"

18

Linnenbrink and Pintrich (2003)

- **Help students maintain relatively high but accurate self-efficacy beliefs.**

"Because you..."
"And that helped you..."
"As a result of...you were able to"
"Remembering... helped you" (McCabe, 2006, p. 54)

19

Linnenbrink and Pintrich (2003)

- **Provide students with challenging academic tasks that most students can reach with effort** (p. 135).
- **Promote students' domain specific self-efficacy beliefs rather than global self-esteem** (p. 135).

20

Linnenbrink and Pintrich (2003)

- **Foster the belief that competence or ability is a changeable, controllable aspect of development.**

21

Finally,

Teach students to attribute success to controllable factors such as effort, persistence, and correct use of strategies (Margolis & McCabe, 2003, p. 164).

"Because you..."
"And that helped you..."
"As a result of...you were able to"
"Remembering... helped you..." (McCabe, 2006, p. 54) 22

REFERENCES

Deci, E. L., & Flaste, R. (1995). ***Why we do what we do: Understanding self-motivation.*** New York: Penguin Books.

Margolis, H., & McCabe, P. P. (2003). Self-efficacy: A key to improving the motivation of struggling learners. ***Preventing School Failure, 47***(4), 162-169.

McCabe, P. P. (2006). Convincing students they can learn to read: Crafting self-efficacy prompts. ***Educational Psychology, 79***(6), 252-257.

Saphier, J. (2005). Masters of motivation. In R.DuFour, R. Eaker, & R. DuFour (Eds.), ***On common ground: The power of professional learning communities*** (pp. 85-113). Bloomington, IN: Solution Tree.

Shunk, D. H. (2003). Self-efficacy for reading and writing: Influence of modeling, goal setting, and self-evaluation. ***Reading and Writing Quarterly, 19***(2), 159-172.

23

APPENDIX F:

STUDENT ASSENT / PARENT CONSENT

Hello, Mrs. Faircloth is doing a research project and she wanted me to invite you to help. My name is Dr. Walts and I will be helping Mrs. Faircloth as her research assistant. The project will help teachers learn about how to help students want to learn even when learning is hard. Mrs. Faircloth picked you for this project because even though you try hard, you sometimes have trouble learning in some of your classes and you may not always be interested in trying because the work is hard. I am going to read this form with/to you. You can ask any questions you have before you decide if you want to do this project.

WHO IS MRS. FAIRCLOTH:
You know her because she teaches in your classroom or on your hallway everyday. She is also a student at Walden University working on her doctoral degree. She will continue to teach and she will see you everyday as usual.

ABOUT THE PROJECT:
If you agree to join this project, you will be asked to

- answer some questions about how you learn and what you like about class and school. You will not have to write, you will only have to bubble in your answers. This will take about 1 hour. You will answer the same questions 2 times. One time at the start of the project and one time at the end of the project.
- participate in class. Your teachers will learn some things that may help you want to learn more. You will just go to class as usual.

The research project will last until the last day of school, which is about nine weeks.

HOW THE PROJECT WILL WORK:

- You will meet with me (Dr. W.) and I will ask you some questions. You will bubble in your answers. These questions just tell us what you think about school.
- Mrs. Faircloth will meet with your teachers and teach them some things to do that might help you want to keep trying even when things get hard. Your teachers will try these things out until school is out.
- On the last day, I will ask you the same questions I asked at the beginning of the research project and you will bubble in your answers.
- I will talk with the teachers to find out if they thought the new ideas worked.
- Mrs. Faircloth will look at all the information and write a report about the project.

IT'S YOUR CHOICE:
You don't have to join this project if you don't want to. You won't get into trouble with Mrs. Faircloth or with Dr. R. or any of your teachers if you say no. If you decide now that you want to join the project, you can still change your mind later just by letting me know. If you want to skip some parts of the project, just let me know.

It is not possible that being in this project will cause problems for you, but it might help others because teachers may learn ways to help students want to learn even when learning is hard.

COMPENSATION:
To thank you for helping with this project, you will receive a gift certificate for free ice cream. If you decide to quit early, you will still receive your gift certificate.

PRIVACY:
Everything you tell me during this project will be kept private. That means that no one else will know your name or what answers you gave. The only time Mrs. Faircloth will have to tell someone is if she learns about something that could hurt you or someone else. Your name will be protected and no one will know what you said in class or on the questions. You cannot get in trouble or embarrassed because of the way you answer the questions. Mrs. Faircloth will keep all private information in a locked filing cabinet or on her computer which is locked with a password.

CONFLICT OF INTEREST:
Because Mrs. Faircloth is your teacher she will not be asking you the questions. She wants to make sure you feel like you can answer them exactly the way you want to answer without upsetting her, so I will be working with you during that time.

ASKING QUESTIONS:
You can ask me any questions you want now. If you think of a question later, you or your parents can reach Mrs. Faircloth at Bev@WhiteStoneMedia.com or my professor at JMitchellWU@aol.com . If you or your parents would like to ask my university a question, you can call Dr. Leilani Endicott. Her phone number is 1-800-925-3368, extension 1210.

I will give you a copy of this form.
Please sign your name below if you want to join this project.

Name of Child _____

Child Signature _____

Parent/Guardian Signature _____

Researcher Signature Beverly Faircloth

Bev@WhiteStoneMedia.com

APPENDIX G:

TEACHER CONSENT

TEACHER CONSENT FORM

You are invited to take part in a research study of the intrinsic motivation of students with disabilities in the general education setting. You were chosen for the study because you teach students with disabilities in the 4th or 5th grade in an inclusive setting every day. Please read this form and ask any questions you have before agreeing to take part in the study.

This study is being conducted by a researcher named Beverly S. Faircloth, who is a doctoral student at Walden University. As you know, Mrs. Faircloth is a special education teacher at the research site.

Background Information:
The purpose of this study is to determine if motivational strategies implemented in the classroom by teachers will have an effect on the intrinsic motivation of students with disabilities.

Procedures:
If you agree to be in this study, you will be asked to

- participate in a training session in which the strategies will be introduced. This session will last approximately 1.5 hours and will be held on a Wednesday afternoon in F-69.
- implement these strategies in your classroom for a period of 9 weeks.
- participate in a focus group interview at the conclusion of the study facilitated by Dr. J. C. W., research assistant. This interview will also be held on a Wednesday afternoon and should last approximately 1.5 hours.

Voluntary Nature of the Study:
Your participation in this study is voluntary. This means that everyone will respect your decision of whether or not you want to be in the study. No one at XXXX Elementary or XXXX County School System will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. If you feel stressed during the study, you may stop at any time. You may skip any questions that you feel are too personal.

Risks and Benefits of Being in the Study:
There are no known risks involved in the study. Possible benefits include increased engagement and possibly increased achievement of students with disabilities if intrinsic motivation increases due to the implementation of strategies. Another possible benefit is a change in teacher practice based on the results of the study.

Compensation:
There will be no compensation for participation in the study.

Confidentiality:
Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study. The research site itself will only be described in broad geographical terms.

Contacts and Questions:
The researcher's name is Beverly S. Faircloth The researcher's faculty advisor is James M. Mitchell, Ph.D. You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at (912) 977-6926 or email at bfaircloth@coastalnow.net or the advisor at (510) 693-3506 or JMitchellWU@aol.com . If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Director of the Research Center at Walden University. Her phone number is 1-800-925-3368, extension 1210.

The researcher will give you a copy of this form to keep.

Statement of Consent:

☐ I have read the above information. I have received answers to any questions I have at this time. I am 18 years of age or older, and I consent to participate in the study.

Printed Name of Participant _____

Participant's Written or Electronic* Signature _____

Researcher's Written or Electronic* Signature Beverly S. Faircloth

_____

Electronic signatures are regulated by the Uniform Electronic Transactions Act. Legally, an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically.

APPENDIX H:

FOCUS GROUP INTERVIEW GUIDING QUESTIONS

Guiding Question for Focus Group Interview

Intrinsic Motivation of Students with Disabilities in the General Education Setting: What Teachers Should Know and Be Able to Do

1. How did this intervention in motivational strategies affect the intrinsic motivation of students with disabilities in your classroom?

2. Explain any changes you experienced in your individual practice after the training.

3. How did this intervention in motivational strategies affect the intrinsic motivation of students with disabilities in your classroom?

4. Of all the interventions, which one(s) do you feel had the most impact and why?

5. A statistical analysis revealed no significant difference between the student's responses when the researcher compared what students marked before the training to their responses after the training. Yet, as teachers, you reported seeing a significant difference in behaviors that can be associated with intrinsic motivation across the board. What insight do you have into whey this may be?

APPENDIX I:

CONFIDENTIALITY AGREEMENT

Name of Signer: Dorinda McBride.

During the course of my activity in collecting data for this research:

"Intrinsic Motivation of Students with Disabilities in the General Education Setting:

What Teachers Should Know and Be Able to Do"

I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement, I acknowledge and agree that:

15. I will not disclose or discuss any confidential information with others, including friends or family.
16. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
17. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
18. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
19. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
20. I understand that violation of this agreement will have legal implications.
21. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: Dorinda McBride **Date: June 2, 2008**

XXXX@aol.com

APPENDIX J:

SAMPLE TYPOGRAPHY SUMMARY SHEET

How do teachers perceive the relationship between teacher training in motivational intervention strategies, teacher practice, and levels of intrinsic motivation for students with disabilities in inclusive classrooms?

Before training	**After teacher training**
Lack of attention	• "when is it going to be my turn?" • a change in his grades and in his work ethic • showed an interest • trying to be successful
Blend into background	• "when is it going to be my turn?" • Asked to run the review • Had confidence to volunteer
Incomplete assignments	• "I'm doing my assignment!" • a change in his grades and in his work ethic • trying to be successful
Low self-esteem	• Demeanor would change • Whole little disposition would change • Come up with and answer without being embarrassed • Start to believe in themselves • "I'm doing my assignment!"
Low self-confidence	• Demeanor would change • More independent • "when is it going to be my turn?" • Feeling like they actually knew how to do something. • More confident • Start to believe in themselves • A lot more confident • "I'm doing my assignment!" • More confident • Asked to run the review • Had confidence to volunteer
Did not want to participate	• Asking to participate, "did you call mine yet?" • "when is it going to be my turn?" • "I'm doing my assignment!" • Able to get started on his own without complaining

	• a change in his work ethic • "I tried really hard" • Trying to be successful • Showed an interest • Asked to run the review • Had confidence to volunteer
Shied away from answering questions	• "when is it going to be my turn?" • Feeling like they actually knew how to do something • Asked to run the review
Distracting other students	•
Blend into background	• Work better with their group • Trying to find a partner or group and fit in • Took more active role • Raise his hand • Eager to participate • Showed an interest • Asked to run the review • Had confidence to volunteer
Excuses "I can't…"	• More independent • "when is it going to be my turn?" • Feeling like they actually knew how to do something • "I'm doing my assignment!" • Able to get started on his own without complaining • "I tried really hard" • Trying to be successful • Asked to run the review
Low motivation	• Change in motivation • Demeanor would change • "I'm doing my assignment!"
Desire to remain invisible	• Work better with group • "when is it going to be my turn?" • Asked to run the review • Had confidence to volunteer
unsure	• "when is it going to be my turn?" • Feeling like they actually knew how to do something • "I'm doing my assignment!" • Able to get started on his own without complaining • Asked to run the review • Had confidence to volunteer

CURRICULUM VITA

EDUCATION

Ed.D Teacher Leadership, Walden University, November 2008
Ed.S Teacher Leadership, Walden University, January 2008
MA Ed Curriculum and Instruction, Central Michigan University, August 2002
BS Mental Retardation, University of Georgia, May 1983
AA Music / Voice, Brewton Parker College, May 1981

DISSERTATION

The Intrinsic Motivation of Students with Disabilities in the General Education Setting: What Teachers Should Know and be able to Do: A mixed methods study examining the effect of teacher training in motivational strategies upon the intrinsic motivation of students with disabilities in inclusive settings. Doctoral Committee: Dr. Nathan Long, Dr Rebecca Watts

TEACHING EXPERIENCE

Teacher,----Elementary 1993 to present
Teacher,----Elementary 1992 to 1993

PRESENTER/TRAINER

Georgia Department of Education Reading Excellence Act (REA) Grant 2002
Staff Development / Differentiated Instruction, August 2007
Staff Development / Motivational Strategies March 2008
Staff Development / Understanding Learning Disabilities February 2008

MENTOR

Mentored special education teachers throughout school system at request of Special Education Director
Mentored new teachers or teachers in need of improvement at request of building principal

HONORS

Teacher of the Year, ------ Elementary School 1999
Special Education Teacher of the Year, ----- County Schools 2003

PROFESSIONAL AFFILIATIONS

Professional Association of Georgia Educators