

CLASSROOM MANAGEMENT STRATEGIES: THE IMPACT ON STUDENT
ACHIEVEMENT

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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CLASSROOM MANAGEMENT STRATEGIES: THE IMPACT ON SCHOOLS.

ABSTRACT

The purpose of this causal comparative study was to test the theoretical Classroom Management Teacher Behavior Continuum of Wolfgang and Glickman (1980) that suggests that interventionist, noninterventionist, and interactionalist classrooms may differ in student outcomes. This study explored whether student outcomes in statewide standardized tests reading, English language arts, and math differ by interventionist, noninterventionist, or interactionalist teacher instruction management (IM) and behavior management (BM) styles. Survey data from eighty-three 3rd, 4th, and 5th grade teachers regarding instructional and behavioral classroom management beliefs were contrasted in the percentage students passing standardized tests of reading, ELA, and math using MANOVA at a threshold of $p < .05$. Student performance did not significantly differ by IM style, while interactionalist BM classrooms had a significantly higher percentage of student passing statewide tests of math, reading, and ELA than interventionist classrooms. This line of investigation is important towards fostering best practices for teachers and optimal outcomes for elementary school students.

Key Terms: Classroom Management, Proactive, Reactive, Interventionist, Noninterventionist, Interactionalist.

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CHAPTER ONE: INTRODUCTION

Teachers vary in how they manage their classrooms, but little is known regarding the relationship between elementary school classroom management styles and student outcomes (Brannon, 2010). Classroom management optimization is one strategy towards maximizing student achievement and towards compliance with governmental/State mandates, from NCLB (No Child Left Behind Act of 2001) to CCRPI (College Career Ready Performance Index), and from Race to the Top to IDEA (Individuals with Disabilities Education Act of 1990). Classroom management was brought into keen focus in the 1983 publication of *A Nation at Risk: The Imperative For Educational Reform*, published by the National Commission on Excellence in Education, which blamed poor classroom management to explain why some elementary school students receive one-fifth of the reading comprehension instructional time of other students (NCEE, 1983, p. 20). The NCEE report went on to state that, “The teacher preparation curriculum is weighted heavily with courses in "educational methods" at the expense of courses in subjects to be taught.” (p 23) In spite of all of this effort invested in pedagogy, surprisingly little is known regarding how instructional and behavioral classroom management styles might impact student outcomes.

The enactment of NCLB in 2001 changed classroom practices (Mertler, 2011). NCLB mandates 100 percent proficiency of all school children by 2014, which places increasing pressure on the educational community to find solutions to help all students pass standardized tests on reading, math, and English language arts. In the state of Georgia in 2012, one in ten 4th graders failed to pass the statewide standardized Criterion-

Referenced Competency Tests (CRCT) in reading and in ELA, and more than one in five failed to pass math (GDOE, 2013). Teachers, administrators, school districts, and state governmental agencies are keenly focused on meeting the looming NCLB mandates. One solution towards meeting NCLB mandates may be effective classroom management.

Boynton and Boynton (2005) explained how ineffective classroom management skills can waste instructional time, reduce time-on-task, and interrupt learning environments. In addition to interrupting the classroom environment, if proper classroom management is not exercised, disruptive behavior by a few students can have a negative effect on teacher's instruction, which can lead to other students joining-in and can cause students to question the abilities of their teacher (Braden & Smith, 2006; Rogers & Freiberg, 1994). For these reasons, it is important to study instructional and behavioral classroom management.

In schools today, teachers are concerned about disciplining students in ways that will remove the students from the learning environment, because when students are removed from the classroom environment, they are losing instructional time, which may result in learning gaps (Braden & Smith, 2006; Etheridge, 2010). According to Killiam (1998), disciplinary issues consistently rank as one of the largest concerns in America's society. This may be attributed to the fact that discipline is handled in a different way today. In the past, students may have been paddled for offenses. However, today, this type of discipline is seldom used in public schools.

Due to societal changes over the past 100 years, schools have more behavior issues that affect the way a teacher manages the classroom (Etheridge, 2010). Previous studies in the field of classroom management have indicated that classroom disciplinary

issues today are worse than those in the past, which has impacted student achievement (Colavecchio & Miller, 2002; Barden & Smith, 2006; Etheridge, 2010). According to historian Dianne Ravich (2000), half a century ago, students did not question a teacher's authoritative role in the classroom because they were fearful of a referral to the principal's office and of the retribution that came when the teachers contacted their parents. As research shows, disruptive behavior does not only affect the student who is noncompliant with the rules, but every other student in the classroom (Canter, 2003; Daly, 2005; Marzano, 2003). According to Daly (2005), "There's not a teacher alive who hasn't felt the frustration of trying to manage a classroom with at least one student who repeatedly pulls other students off-task with annoying, disorderly behavior" (p. 9). In addition, Canter (2003, 1998) and Marzano (2003) have both documented harmful results of having continuous classroom disruptions.

Based on the studies above, classroom management issues are having a devastating impact on student achievement. With students mainstreaming under laws such as IDEA, and structural changes in schools, classroom management has become a high priority for public schools in the United States. In today's classrooms, students are required to meet state and national standards, in addition to receiving passing scores on mandated standardized tests, such as the CRCT. Therefore, the primary purpose of this study was to investigate whether classroom achievement rates in reading, ELA, and math on a statewide exam might differ by elementary school teachers' perceptions of their classroom management strategies (Martin & Sass, 2010). Eighty-three teachers completed the *Behavior and Instructional Management Scale* (Martin & Sass, 2010), which categorizes instructional and behavioral classroom management strategies as

noninterventionist, interventionist, or interactionist. These data were contrasted in statewide standardized test of student achievement to assess the relationship between classroom management styles and elementary school (grades 3, 4, 5) student achievement. This study took place in three public elementary schools located in a Northwest Georgia county.

Background

In today's society, schools are being held accountable for every aspect of student achievement. Classroom management plays a major role in a student's classroom achievement. Unfortunately, many of the education reforms have failed to mention or address the relationship between student achievement and student discipline (American Association of School Administrators, 2002; Brannon, 2010). Throughout the decades, classroom discipline has been cited as a major issue for teachers (Martin, Chiodo, & Chang, 2001; Martin & Sass, 2010). According to Shupe (1998), student achievement has been affected in schools where discipline and behavioral issues are not appropriately handled (p. 27). School discipline issues are increasing in public focus. Despite long-standing attention to the problem, there is a growing perception that not all public schools are safe places of learning, highlighted by extensive media coverage of school-based violent acts, like the recent (December 14, 2012) incident in Sandy Hook Connecticut, where twenty children and six adults were killed by an intruder. Discipline problems are of great concern in America's schools (Brannon, 2010; Martin & Sass, 2010). More students are spending time outside of the classroom, in places like in-school suspension

or out of school suspension, instead of in the classroom setting, which ultimately affects their academic achievement.

Even though several popular classroom management theories, such as Skinner (1967), Rogers, Wong (1990), Glasser (1985), and Canter (1990), are utilized in classrooms today, teachers are still concerned about classroom management and student achievement (Brannon, 2010). As teacher concerns and mandates have evolved over the years, classroom management techniques have been divided into two major components: behavioral (BM) and instructional management (IM). Based on Martin and Sass (2010), “Behavioral Management (BM) is similar to, but different from discipline in that it includes pre-planned efforts to prevent misbehavior as well as the teacher’s response to it” (p. 1126). BM refers to the general daily maintenance of the classroom, which includes classroom rules for student input during instructional time and the types of reward systems utilized (Martin & Sass, 2010). Instructional Management (IM) includes “aspects such as monitoring seatwork, structuring of the daily routines as well as teachers’ use of lecture and student practice versus interactive, participatory approaches to instruction” (Martin & Sass, 2010, p. 1126).

Research has provided definitions of classroom management. McCreary (2010) defined classroom management as “the methods and strategies an educator uses to maintain a classroom environment that is conducive to student success and learning” (p. 1). Efficient teachers should acquire a toolbox of classroom management strategies that they can use within their classrooms. According to Marzano (2003), “well-managed classrooms provide an environment in which teaching and learning can flourish” (p. 1). As Marzano (2003, 2007) points out, the importance of students feeling safe at school is

linked to student learning. Without this feeling of safety, students will develop anxiety and become uneasy in the classroom. Marzano (2003) reported, “Safe and orderly environment is protecting students from physical or psychological harm and maintaining order so learning can take place” (p. 40). This present study was guided by Martin and Sass (2010), who suggest that classroom management “encompasses teacher efforts to oversee the activities of the classroom including student behavior, student interactions and learning” (p. 1124).

Even though research shows the importance of classroom management, it is unclear which method or strategy is more appropriate to employ in elementary schools (Brannon, 2010). As teachers work through the new mandates and standards developed by the national and state governments and local school boards, classroom management strategies are driven to the end of their list. Even though many people have researched this topic, no one has yet pinpointed which method or strategy works best. According to Churchward (2009), “There are many experts telling us how to handle discipline problems in our classrooms. Yet these experts do not always agree” (p. 1).

The current trends: noninterventionist, interventionist, and interactionalist, are the approaches to classroom management that were investigated in this research project. Noninterventionist (proactive) is “being prepared and in control” (Churchward, 2009, p.1). Interventionist (reactive) is “doing “this” because some kid did “that!” (Churchward, 2009, p.1). Interactionalists are seen as believing students learn from interacting with peers in their environments, which is a shared classroom management strategy (Ritter & Hancock, 2007). Each of these classroom management

philosophies, noninterventionist, interventionist, and interactionalist, is based on scholarly reasoning.

Harry Wong is the major proponent of noninterventionist discipline. He purports to the theory that classroom issues must be handled before an issue occurs. Wong (1998) commented that in this management strategy, “Students involved with their work, especially with academic, even teacher-led instruction; Students always know what is expected of them and they tend to be successful; there is very little time off task such as wasted, disruption, etc.; The classroom environment is work oriented along with being pleasant and relaxed” (p. 86).

Lee Canter’s assertive discipline is considered the interventionist approach. Etheridge (2010) defined assertive discipline, originally designed by Lee Canter (2004), “as a disciplinary approach that is designed to acknowledge a take charge and assertive approach on the educator's part. The procedure is oriented to the teacher and ensures that rule making falls under the teacher's authority. Positive consequences, rewards, negative consequences, and punishment are items that were selected for the benefit of both the students and the teachers.” (p. 20)

The interactionalist uses a shared classroom management strategy (Glasser,1997) or foster student outcomes by adopting a combination of interventionist and noninterventionist approaches (Lanoue, 2009). These theories allow for the students and teachers to acknowledge the individual behavioral differences of others. This type of management allows a teacher to make modifications and adjustments in his/her classroom by determining how his/ her students desire to be treated.

Even though there is theoretical support for interventionist (Bandura, 1997; Canter & Canter, 1992; Skinner, 1974), noninterventionist (Kounin 1970; Rogers 2008; Wong & Wong, 1998), and interactionist (Glasser, 1997; Lanoue, 2009) classroom management styles, little is known regarding how student outcomes might be related to these classroom management styles (Brannon, 2010). Further, no studies to date have contrasted teacher instruction management (IM) and behavior management (BM) styles on the percent of classroom students passing standardized tests of reading, math, and English language arts. Classroom management and learning appear to be linked. If elementary schools are striving to develop students who can be successful and who can achieve throughout their school experience, then classroom management techniques need to be studied to determine which method is more effective for the underlying goal: student success. Instructional management and behavioral management may be the keys to establishing a classroom management in which learning and achievement can be maintained within the classroom environment. However, few studies to date have explored possible differences between teacher management styles and student outcomes (Brannon, 2010). This gap in the literature is reflected in the following problem statement.

Problem Statement

No Child Left Behind Act of 2001 included mandates from the federal government to the state and local school systems (U. S. Department of Education, 2008). Due to the mandates, instructional and behavioral management practices and methods have changed. NCLB is linked to classroom management in terms of how a teacher

manages his/her classroom to ensure that quality teaching and learning occur. Due to recent changes waived in the enactments of NCLB by President Obama, Georgia schools will be held accountable using the College and Career Ready Performance Index (CCRPI) to measure a school's achievement (Barge, 2012). CCPRI not only measures student achievement, it measures teacher effectiveness. Under the infrastructure developed by the accountability waiver for NCLB, schools in Georgia will be categorized as Priority Schools, Focus Schools, or Reward Schools. According to Barge (2012), Georgia will provide a CCPRI report to the United States Department of Education (USDOE), which will determine whether the accountability waiver requirements have been met. If Georgia does not meet the requirements and goals of the waiver, then the state must return to following the requirements expected with NCLB (Barge, 2012).

NCLB and accountability waivers for NCLB have made swelling effects on the educational system in the United States, including classroom management (GADOE, 2012). Oliver and Reschly (2007) commented on NCLB "These federal laws place a high priority on improving results for students with historically low achievement (e.g., economically disadvantaged students) and students with disabilities. In addition, these laws embrace the following: teacher quality as a critical factor affecting student achievement; the amelioration of learning and behavioral disorders; and broad educational outcomes for students, such as high school completion and participation in postsecondary education careers" (p.1). Both of these measuring tools for schools have placed an emphasis on teaching and learning. If a teacher does not possess strong classroom management skills, her teaching will not foster student achievement.

Some teachers may use classroom management strategies that have a positive impact on the behavior of students, but some methods may be harmful for the child and the classroom. However, little is known regarding how student outcomes might differ by teacher classroom management style. Therefore, what was needed is a study that contrasts teacher instructional and behavioral classroom management styles in the important outcomes of percent of students passing statewide standardized tests of reading, ELA, and math.

Purpose Statement

The purpose of this study was to determine if student achievement differs by a teachers' classroom management style, testing the theoretical Classroom Management Teacher Behavior Continuum of Wolfgang and Glickman (1980) and of Martin and Sass (2010), which classifies teacher instruction management (IM) and behavior management (BM) styles as interventionist, noninterventionist, and interactionalist. The interventionist teacher may try to foster student outcomes with reactive classroom management, providing direct consequences for student actions (Dreikurs, 1991; Skinner, 1974; Canter & Canter, 1992), which may help others learn by observation (Bandura, 1997). In contrast interventionists, the noninterventionist teacher may try to foster student outcomes with more proactive rather than reactive strategies, planning ahead to extinguish classroom issues before they occur (Rogers, Wong & Wong, 1998). Interactionalists may try to foster student outcomes by promoting a shared classroom environment for student and teacher (Glasser, 1997) or by adopting a combination of interventionist and noninterventionist approaches (Lanoue, 2009). However, no studies to

date have contrasted interventionist, noninterventionist, and interactionalist classrooms in the percentage of 3rd, 4th, and 5th grade students passing statewide standardized tests of reading, math, and ELA.

This study included survey data collected from teachers regarding their demographics and their classroom management style, as well as archival data of the percent of students meeting and exceeding the standardized tests (a score of 800-990) per teacher. Teacher instruction management (IM) and behavior management (BM) styles were determined by using The Behavioral and Instructional Management Scale (BIMS), which categorizes teachers as interventionists, noninterventionists, or interactionalists. Student achievement was determined as the percent of students passing the Criterion-Referenced Competency Tests (CRCT) of Reading, English Language Arts, and Math.

Multivariate analysis of variance (MANOVA) was used to determine if there were statistically significant differences between classroom management styles in CRCT outcomes. Instructional classroom management and behavioral classroom management were explored in parallel MANOVA analyses. Demographic variables of teacher gender, number of years of teaching, highest education degree, and grade level taught were considered as covariates in the analysis plan because these variables can potentially affect BIMS instructional management scores (Santiago, 2012), but none of these potential covariates were statistically related to outcomes in the present study, so MANOVA was used rather than multivariate analysis of covariance (MANCOVA). This research was crucial towards filling a gap in the published research literature regarding which classroom management approach optimally fosters student achievement (Wiener & Hall, 2004; Marzano, 2003; Wong & Wong, 1998).

Significance of the Study

The research was needed for several reasons. Since the education of children has changed due to NCLB and now, CCRPI, the question is what approach of discipline, interventionist, noninterventionist, or interactionalist fosters more success in the classroom? With programs like Race to the Top, developed by President Obama, classroom management and student achievement are under a magnifying glass. Programs like these, support new teacher pay scales to be based on student performance (i.e., standardized test) and teacher performance (i.e., classroom management) instead of pay based on teaching experience and educational degrees (Clark, 2010). Even though higher degrees obtained by teachers are not linked to student performance, educators (Hearn, 1999; Bordoff & Furman, 2008), Clark (2010) and Ohanian (2010) propose that a variety of classroom management aspects, such as behavioral and instructional management, should be the basis for pay for performance since both are components for classroom management, instead of paying teachers for higher degrees obtained. Along with the consideration of performance pay, tools have been developed to address behavior concerns. The Georgia Department of Education (GADOE) (2012), like most states, developed a behavioral intervention pyramid to assist educators with addressing behavioral issues within the classroom. The pyramid has four tiers, with the first tier addressing all of the students within a school setting. As the pyramid progresses upward, the interventions become more individualized. Students who cannot find success with

most behavioral interventions in tiers one through three may be referred for special services. Many schools and state education boards have developed tools, like the pyramid, to address behavioral issues within the classroom setting. Even though these research-based tools exist for addressing behavioral issues in the classroom, it is unclear which classroom management approach work best for elementary school students seeking to pass statewide tests in reading, ELA, and math.

Research Questions and Null Hypotheses

The research questions and hypotheses that guided this research follow.

Research Question 1: Instructional Management and Student Outcomes

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) based on teacher instructional management (IM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 1a

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of reading based on teacher instructional management (IM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 1b

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of English language arts

based on teacher instructional management (IM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 1c

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of math based on teacher instructional management (IM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 2: Behavior Management and Student Outcomes

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) based on teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 2a

Are there significant differences between teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist) and the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of reading?

Research Question 2b

Are there significant differences between teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist) and the percent of students

passing the standardized Criterion-Referenced Competency Tests (CRCT) of English language arts?

Research Question 2c

Are there significant differences between teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist) and the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of math?

The null hypotheses follow. The hypotheses for this study were derived from the Research Questions. Hypothesis 1 (IM and CRCT student achievement) is parallel to Research Question 1 and includes three parts: IM and reading (H1a), IM and ELA (H1b), and IM and math (H1c). Similarly, Hypothesis 2 (BM and student achievement) is parallel to Research Question 2 and includes three parts: BM and Reading (H2a), BM and ELA (H2b), and BM and Math (H2c)

Null Hypothesis 1

Hypothesis 1: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing standardized tests of reading, English language arts, and math.

IM and Reading

H_{1a}: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) and the

percent of third, fourth, and fifth grade students passing the standardized CRCT reading test.

IM and ELA

H_{1b}: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) in the percent of third, fourth, and fifth grade students passing the ELA portion of the CRCT.

IM and Math

H_{1c}: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) in the percent of third, fourth, and fifth grade students passing the math portion of the CRCT.

Null Hypothesis 2

Hypothesis 2: There are no significant differences between teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing standardized tests of reading, English language arts, and math.

BM and Reading

H_{2a}: There are no significant differences between teacher behavior management (BM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing the reading portion of the CRCT.

BM and ELA

H_{2b}: There are no significant differences between teacher Behavior Management (BM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing the ELA portion of the CRCT.

BM and Math

H_{2c}: There are no significant differences between teacher behavior management (BM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing the math portion of the CRCT.

Identification of Variables

The key variables within the study were student achievement, teacher instructional and behavior strategies, and teacher demographics. These teacher variables were measured using the BIMS, which is broken into parts: instructional management and behavioral management. Instructional management is used when the teacher determines how the student uses his/her time, in terms of “daily routines, seatwork, and allocating materials” (Martin, Yin, & Baldwin, 1998, p. 7). Instructional management begins with effective planning of the teacher to ensure all lessons in the classroom are age and content appropriate, along with, grasping the attention of their students.

According to Martin, Yin, and Baldwin (1998) “Behavioral management focuses on preplanned means of preventing misbehaviors rather than the teacher’s reaction”(p. 8). Noninterventionist, interventionist, and interactionalist discipline methods/strategies and CRCT are the independent variables within this study. The dependent variable is the CRCT scores and the BIMS survey. Martin and Sass (1998) created a survey, the

Attitudes and Beliefs on Classroom Control (ABCC), to measure teacher perceptions of classroom management. It was comprised of twenty-six Likert format statements and included three scales: Instructional Management (14 items), People Management (8 items), and Behavior Management (4 items)” (p. 103). The ABCC is no longer available because it has been surpassed by the BIMS (Appendix D), so the BIMS was employed in this study (Appendix E). It is comprised of twenty-four questions that include two scales: Instructional Management (6 items) and Behavior Management (6 items). This version of the BIMS that was used in the present study has been previously validated (Martin & Sass, 2010).

Operational Definitions

Behavioral management: Behavioral management may refer to interventionist, noninterventionist, or interactionist approaches to managing the instruction and behavior in the classroom. (Martin, Yin, & Balwin, 1998, p.8).

BIMS (Behavior and Instructional Management Survey): The BIMS is a relatively brief, posted psychometrically sound instrument that measures teachers' perceptions of their behavior management and instructional management. The BIMS was designed to be more reliable and more valid than the ABCC survey. *Discipline problem:* Discipline problem is defined as an issue or behavior that the student exhibits that is disruptive to the learning environment (Skiba, Peterson, & Williams, 1997). How will this be determined?

Disciplinary Referral: Disciplinary referral is defined as forwarding a student to an administrator for a disciplinary problem (Skiba, Peterson, & Williams, 1997).

Georgia College and Career Ready Performance Index (GACCPRI): This instrument measures the extent to which a school, school district, and the state are successfully making progress on a number of accountability indicators such as content mastery, student attendance, and the next level of preparation. “The College and Career Ready Performance Index developed by Dr. Barge and his team at the Georgia Department of Education moves us in the right direction for 21st century accountability,” said Gov. Nathan Deal. “Rather than focusing on one test given on one school day, the CCRPI takes a comprehensive look at the things that go into making successful elementary, middle and high schools” (GADOE, 2011, p. 2).

Highly Qualified Teachers: A highly qualified teacher in Georgia must:

- 1 Have a bachelor’s degree from an accredited institution;
- 2 Have a valid teaching certificate (excludes some certificates such as waivers);
- 3 Have evidence of specialized training in the field(s) he/she is teaching, including - an academic major, or- a passing score on the Praxis II teacher certification test (new teachers), or have met the “High Objective Uniform State Standard of Evaluation” (HOUSSE) as defined by the GAPSC (veteran teachers);
- 4 Have a teaching assignment in the fields he/she holds a certification.

(GAPSC, 2010,p.4).

Instructional Management: This term is used when the teacher determines how the student uses his/her time, in terms of “daily routines, seatwork, and allocating materials” (Martin, Yin, & Baldwin, 1998, p. 7). Instructional management also refers to the rigor of the lesson being taught to one’s students.

Proactive (Noninterventionist) Discipline strategy/method: “Proactive classroom management is based on organizing the classroom in ways that create a positive physical

and emotional environment. Proactive teachers establish routines, lessons, and disciplinary strategies that teach students self-control.” (Henley, n.d., p. 7)

Out of School Suspension: An out of school suspension happens when a student is removed from the school setting based on disciplinary reasons. Students may or may not be able to return to school, based on the severity of the infraction committed.

Reactive (Interventionist) Discipline strategy/method: This term is used when “A teacher's response [follows] a student's misbehavior in the classroom. The teacher imposes punishment that is fair and consistent when dealing with a student's inappropriate actions” (Byerly, 2010, p.1).

Summary

Classroom management can potentially have a profound effect on learning (Rogers & Freiberg 1994). Instructional classroom management and behavioral classroom management are considered to be components of effective instructional practices (Kraft, 2010; Martin & Sass 2010; Marzano & Marzano, 2003; Wolfgang & Glickman, 1980). Quality teachers possess an array of personal characteristics that impacts their instructional practices (Chambers et al., 2001). It is imperative that classroom behavior is managed so that student achievement can occur. This study of classroom management and its impact on student achievement will be useful in “an era when research tells us that teachers are probably the single most important factor that we can do much about” (Marzano, et al., 2003, p.1). This study was designed to answer important questions many educators are asking, as classroom management becomes an

increasingly important strategy towards providing a learning environment in which no child is left behind.

CHAPTER TWO: LITERATURE REVIEW

Introduction

Classroom management is a major concern in schools today. According to Martin and Sass (2010), classroom management entails an “umbrella of definitions that include learning interactions, learning, and the behavior of students” (p. 1125). Walker (2009) stated, “The best teachers don’t simply teach content, they teach people” (p.122). According to Marzano, Pickering, and Pollack (2001), to effectively teach their students, teachers need to employ effective behavior management strategies, implement effective instructional strategies, and develop a strong curriculum. In addition to managing the instruction in the classroom, a teacher’s most significant challenge is also managing the behavior of students in the classroom because of how it can affect instruction, learning, and achievement. Since the mandates associated with the federal law NCLB (No Child Left Behind), the CCRPI (College and Career Ready Performance Index), and achievement based programs, such as Race to the Top; teachers are concerned about punishing students in ways that will remove them from the regular classroom setting. Nevertheless, when they decide to address the discipline issue, students are removed from their instructional area of expertise to a possibly weaker and undertrained skill of classroom management, like ISS (Etheridge, 2001). Teachers must continuously decide whether they should address disruptive behavior through disciplinary actions or continue to attempt to teach those students (Etheridge, 2010).

Educators cannot meet the demands of these mandated plans without effective classroom management strategies employed in their classrooms. According to Shupe

(1998), student achievement has suffered in schools where plaguing discipline and behavioral issues have not been adequately addressed. “There’s not a teacher alive who hasn’t felt the frustration of trying to manage a classroom with at least one student who repeatedly pulls other students off-task with annoying, disorderly behavior” (Daly, 2005, p. 9). When students with behavior issues are not handled properly, research has shown they can negatively influence the learning environment by persuading other to join them, which cause teacher effectiveness to be questioned, and causing an increased stress for the teacher (Braden & Smith, 2006; Etheridge, 2010). The effect of classroom disruptions, especially the noncompliant behaviors, attributed to 2% to 5% of students, is a concern. These noncompliant behaviors interfere with the teacher’s ability to function effectively by consuming a disproportionate amount of the teacher’s time and energy. Furthermore, it has been suggested that identifying effective and efficient strategies for improving behavior must be included in educational reform before a profound impact on schools is noticed (Sailor, Stowe, Turnbull III, and Kleinhammer-Trammill (2007, p.368).

Another issue linked to classroom management is recognizing which approach/method is the most appropriate for elementary school students. Is there a one size fits all approach to classroom management? Research shows the first years of a teacher’s career are considered to be the toughest years of their profession, particularly in terms of classroom management and discipline strategies. According to Etheridge (2010), these tough years are shown in estimation indicating roughly 30% of teachers abandon the profession after three years and nearly 50% of teachers leave within the first five years of entering a teaching career. Due to the changes in teaching and learning, schools

are dealing with and seeing more discipline and classroom management issues. Bear (1998) argues school discipline in the United States has changed dramatically within the last few years, Clegg (1984) suggested unproductive discipline affects many aspects of education. Does a teacher's BM or IM score affect their students' achievement? Students have changed over the past 100 years; therefore, classroom management strategies need to be readjusted to meet the demands of a new generation.

It is important to distinguish between instructional management (IM) and Behavioral management (BM). Instructional management is when the educator maintains control within their classroom with the rigor of the lesson. According to Fowler (n.d.), "discipline is a subcategory of classroom management, and classroom management is a subcategory of instructional management" (p. 20). Instructional management is based on planning effective lessons within the classroom where the students remain engaged and on task. Students are very impressionable and require teachers who have the knowledge of how to create the best outcome for everyone in the learning environment.

Behavioral management (noninterventionist, interventionist, and interactionalist) is related to the expectations a teachers holds for their students. Zimmerman (2011) wrote, "It's not enough to expect students to keep their hands to themselves or to raise their hands to speak, though those are great starts. Students also need to understand how you expect them to walk around the classroom, to handle sharpening pencils and turning in papers and how you want them to sit at their desks. They need to know how to get your attention appropriately and what voice levels to use at what times" (p. 1). Slater (2002) mentions five areas an educator should make their focal point as they desire to maintain people management: "communication, fairness, listen, empower, and change" (p. 1). The

present study explores the possible association between student outcomes and approaches to instructional and behavioral classroom management

Theoretical Framework: Classroom Management Approaches

The theoretical framework for this study is the teacher behavior continuum of Wolfgang and Glickman (1980; Lanoue, 2009; Martin & Sass, 2010). According to the continuum of Wolfgang and Glickman, instructional and behavioral classroom management can be conceptualized as interventionist, noninterventionist, and interactionalist (Lanoue, 2009; Martin & Sass, 2010) (Figure 1).

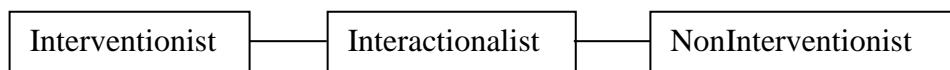


Figure 1. Classroom Management Teacher Behavior Continuum of Wolfgang and Glickman (1980) and of Martin and Sass (2010).

Historically, classroom management has focused on discipline as the foundation for behavioral and instructional management. McArthur (2002) showed that educators have long understood that behavior issues can affect the classroom environment. Rosas and West (2009) reported, “Classroom management is an understandable concern for teachers, particularly given the fact that schools are expected to provide a safe, orderly environment and that teachers are accountable for students’ academic achievement” (p. 55). To better understand classroom management, Wolfgang and Glickman (1980) developed a classroom management model that is expressed as a continuum from interventionist to and non-interventionists, with interactionalist in-between (Martin, 1995; Ritter & Hancock, 2007; Wolfgang & Glickman, 1980).

In the context of this theoretical framework, interventionists react to student behavior with consequences, while non-interventionists, rather than react to students, plan their environment to proactively facilitate the classroom. Interactionalists seek to utilize the best aspects of interventionists and non-interventionists classroom management (Lanoue, 2009; Martin & Sass, 2010; Wolfgang & Glickman 1980). These three classroom management approaches are reviewed below, including the important historical figures aligned with aspects of interventionist, noninterventionist, and interactionalist approaches to classroom management. Empirical evidence supporting or not supporting each classroom management approach is then presented, followed by a chapter summary. This section begins with the interventionist approach to classroom management.

Interventionist Classroom Management

Interventionist classroom managers seek to manage the classroom by intervening to shape student behavior with consequences. Skinner, Bandura, Dreikurs, and Canter each provide a unique contribution to our present understanding of interventionist classroom management.

B.F. Skinner

Skinner's *Behavior Management* beliefs focused on consequences for behavior. B.F Skinner believed that behavior is shaped by the consequences that follow an individual's actions. In 1974, his book *About Behaviorism*, Skinner stated, "Behaviorism is not the science of human behavior; it is the philosophy of that science" (p.3).

According to Skinner, reinforcements can increase desired behaviors and decrease unwanted behaviors. Types of reinforcements could be social, graphic, tangible, or an activity (Andrius, 2012). Skinner (1974) wrote, “Everything we know about operant conditioning is relevant to making behavior more or less likely to occur upon a given occasion. This is the traditional field of rewards and punishment, but much sharper distinctions can be made in taking advantage of what we know about contingencies of reinforcement” (p.181). Operant conditioning of behavior is a process of behavior modification in which the likelihood of a specific behavior is increased or decreased through positive or negative reinforcement each time the behavior is exhibited, so that the subject comes to associate the pleasure or displeasure of the reinforcement with the behavior (American Heritage Dictionary, 2009, p. 1).

Skinner (1974) implied that a teacher can control the classroom environment through instantaneous reinforcement. These reinforcements can come in positive (special opportunities, celebrations, candy) and negative (loss of opportunities, office referrals, in school suspension, out of school suspension) forms to create an environment where each student works productively. Skinner (1974) closed with a concept, “...problems can be solved, even the big ones, if those who are familiar with the details will also adopt a workable conception of human behavior” (p.251).

From the behaviorist view of Skinner, the student’s behavior can be shaped by consequences. However, a classroom has more than one student at a time, and learning can occur vicariously. To extend the behaviorist concept of learning from consequences to include learning by observing the consequences of the behaviors of others, a social learning theory was needed.

Albert Bandura

Albert Bandura developed the *Social Learning Theory* built around the view that people learn appropriate and inappropriate behaviors from each other. Bandura (1986, 1997) thought that students learn through their perceptions and imitations of certain behaviors demonstrated by parents, teachers, or other students. Bandura believed that, as behaviors were exhibited, individuals would emulate one another (Bandura, 1993). This theory has important implications for classroom management.

According to Bandura's (1986, 1997) Social Learning Theory, people acquire a self-efficacy or a self-belief system, which allows them to possess self-control of their thoughts, actions, inspiration, drive, and feelings throughout various levels of life. Bandura characterized self-efficacy as the "beliefs in one's capability to organize and execute the courses of action required to manage prospective situations" (Bandura, 1997, p. 2). Social Learning Theory also emphasizes the importance of student perceptions in the learning process with an emphasis on the idea that people frequently acquire knowledge, rules, skills, strategies, beliefs, and attitudes by watching others (Bandura, 1986). Therefore, social learning is important in classrooms.

Bandura (1997) believed that self-efficacy persuaded the choices people make because a person's experiences and learning from others are the groundwork through which a person reveals his or her behavior. "Efficacy beliefs are the foundation of human agency. Unless people believe they can produce desired results and forestall detrimental ones by their actions, they have little incentive to act or to persevere in the face of difficulties" (Bandura, 2001, p. 10). Bandura (1997) offered "triadic reciprocal causation" as an identifier for justifying how one's personal behavior and uniqueness, along with the

surrounding environment, work together to make people both products and producers in their environments (Bandura, 1997, p.6). This triadic reciprocal causation is the interaction between thought, influence, and action (Bandura, 1997) in what people believe, think, and experience that determines how they behave (Bandura, 1986; Bower, 1975; Neisser, 1976). Efficacy beliefs that a person possesses regarding their skills, influence their actions in the present and future. Bandura's theory is the foundation for classroom management strategies that center on the idea that students learn from each other and that teachers can shape a student behavior by influencing students to realize they have the power to change.

While Bandura's Social Learning Theory showed how students can learn from the consequences of others, which extended the views of behaviorists like Skinner, Dreikurs showed how interventionist classroom management can occur in the absence of rewards and punishments by focusing on logical consequences of classroom behavior.

Rudolf Dreikurs

Rudolf Dreikurs developed a social method of classroom discipline. "Dreikurs had four behavioral goals: attention, power, revenge, avoidance of failure (McLain, 2008, p.1). "Dreikurs did not believe in the use of punishment, reinforcement or praise. Instead, he believed that natural/logical consequences (directly tied to misbehavior, involve moral judgments, etc.) and the process of encouragement are the most useful techniques for preventing discipline problems" (Gurcan & Tekin, n.d., p.6).

Dreikurs (1991) believed students needed to be taught in democratic classroom. Teachers should be warm, friendly, and kind while at the same time remaining firm. "As

the teacher learns to talk less, act more [*sic*] and respect students as individuals with enormous potential, she can then teach in a co-operative [*sic*] atmosphere where students are willing to learn and discipline problems are minimal” (Dreikurs & Cassel, 1991, p. 96). According to this cognitive theory, if students understand the logical consequences of their behavior, they are more likely to act in a manner that is compatible with the goals of the classroom.

Interventionists can be behaviorists like Skinner, or social learning theorists like Bandura, or cognitivists like Dreikurs, in that they all foster methods to intervene with perceived consequences. Canter contributes assertiveness to interventionist classroom management.

Lee Canter

Lee Canter promoted the reactive interventionist discipline method. In 1976, Lee and Marlene Canter created and published the Assertive Discipline plan for classroom management. When consulting for school systems, they found that many teachers were unable to control undesirable behavior that occurred in the classrooms (Canter & Canter, 1993). The assertive discipline method was more for teachers to execute a discipline plan geared at eliminating behavioral problems. According to Canter and Canter (1993) “Assertive teachers believe that a firm, teacher-in-charge classroom is in the best interests of students. They believe that the students wish to have their behavior directed by the teacher” (p.1).

The Canters’ viewpoints and practices have changed along with society and educational trends and demands pushed down from the head leaders in the state and

federal educational departments . Just as Skinner (1974) recommended the usage of positive and negative reinforcement to alter the classroom environment and instill purpose, Canter and Canter believed in the utilization of rewards and consequences to stimulate students to make suitable choices.

Mostly, the Canters (2006) proposed methods to be used for improving academic success for all students by establishing a positive learning environment. He believed that all of this could be accomplished by developing and maintaining relationships between the students and the teachers (Canter, 2006). He created quite a few characteristics of effective classroom managers. Some of these characteristics include areas related to implementing rules, procedures, and student expectations. One area of the Canter's classroom management approach that is positive was idea of motivating students far past their individual potential. Canter and Canter (2001) thought teachers should be proactive in terms of creating a functional learning environment. Teachers who desire to create this type of learning environment must donate the same consideration and planning as they devote to their teaching.

Canter and Canter (1976) discussed several benefits of executing an assertive management plan within their classroom. Some of the benefits of implementing this type of management plan are consistency and confidence of the teacher. Essentially, teachers usually lean towards using techniques that prevent any type of behavioral issues or problems. Dr. Karen Walker quoted the following statement from Good and Trophy (1984) "investigated teachers' basic skills and efficacy and found that many teachers felt their worth as a teacher was directly related to their success of implementation of management skills" (p.1).

Assertive/reactive discipline is geared more toward teachers developing a reward system comprised of positive and negative consequences based on the student's behavior. The original model stated that teachers were to write students' names on the board when a violation occurred and a punishment would be given (Canter & Canter, 1976). Needless to say, that model has been discarded and replaced with keeping names in a journal or record book. This eliminates embarrassment and protects teachers from violating privacy acts. Using the Canter system created a real downside in that teachers were expected to use a reward system for behaviors that were expected but never were these linked to real-life experiences. According to No Child Left Behind, teachers are to develop strategies that are genuine to real life experiences (U. S. Department of Education, 2008). Unfortunately, Canter and Canter did not develop any other types of discipline methods or practices that were not assertive discipline methods. Their primary belief was that if teachers use disciplinary action to control their students, then that would equal a well-behaved environment would occur in the classroom (Canter & Canter, 1992). They believed that responsible behavior should be taught, but the educator's expectations must also be taught and retaught with the same rigor as an academic lesson (Canter and Canter, 2001).

Summary of Interventionist Classroom Management

The interventionist classroom management approach is reactive in nature, providing consequences for student actions (Skinner, 1974), which may help others learn by observation (Bandura, 1997). Further, logical consequences can be as powerful as

rewards and punishments (Dreikurs, 1991) and interventionists can be assertive (Canter & Canter, 1992).

However, the interventionist classroom management approach has limitations. For example, interventionists are, in general, reactive rather than proactive. Student behavior drives the classroom and the teacher can become a full time disciplinarian rather than a teacher. According to Churchward (2009), “Once a teacher gets caught in the reactive mode, classroom problems seem to multiply” (p.1). Rather than react to student actions, noninterventionist classroom managers take a proactive approach.

Noninterventionist Classroom Management

Noninterventionist (proactive) classroom management is geared towards planning ahead to extinguish any behavioral issues before they occur in the classroom. The noninterventionist management can be more constructive than the interventionist strategy and should lead to positive behavior and the development of self-discipline, thus, the learners’ moral behavior (Erasmus, 2009, p. 8). The noninterventionist may post rules in the classroom, discuss correct ways to act in the classroom, and praise good behavior. Some of the popular proponents of the proactive (noninterventionist) theory are Rogers, Kounin, and Wong. A brief overview of the philosophy and unique contribution of each of these noninterventionist (proactive) classroom management pioneers follows.

Carl Rogers

Research for Teachers (2008) highlighted Carl Rogers’s beliefs on classroom management. The research stated, “He believed that teachers should seek to create emotionally warm, supportive environments in which they worked collaboratively with

their students to achieve mutual goals” (Research for Teachers, 2008, p. 1). According to Ganly (2010), another proponent of noninterventionist management, reinforcement is a positive way to discipline students, and it is a helpful tool in the goal of classroom management (p.2). Rogers believed in experiential learning, along with self-actualization (Research for Teachers, 2008). Rogers thought if teachers were real, praised their students, showed empathy and understanding, then classroom management issues would be obsolete.

Jacob Kounin

Kounin contributed the “ripple effect of discipline” to noninterventionist (proactive) management (1970; p. 1). Kounin (1970), with the assistance of Paul Gump and James Ryan, performed research study over the course of five years to determine “how a teacher’s method of handling the misbehavior of one child influences other children who are audiences to the event but not themselves targets” (p.2). After watching thousands of hours of videotapes, the researchers were able to discover a teacher’s management style effected student behavior. The researchers identified various techniques associated with effective teachers such as, demonstrating to the students the teacher is aware of everything happening in the classroom, ability to deal with multiple situations at one time, and dealing with small behaviors immediately. Kounin ended his book by concluding, “one might say that a mastery of group management techniques enables a teacher to be free from concern about management” (p. 145).

Harry Wong

In “How to be an Effective Teacher: The First Days of School” (1998), Harry Wong and wife Rosemary Wong listed four characteristics a well-managed classroom possess: “Students involved with their work, especially with academic, even teacher-led instruction; students always know what is expected of them and they tend to be successful; there is very little time off task such as wasted, disruption, etc.; The classroom environment is work oriented along with being pleasant and relaxed” (p. 86) Kizlik (2009) commented on the importance of using appropriate effective praise versus ineffective praise. One should monitor their praise to ensure wanted behaviors (Kizlik, 2009). For the most part, the Wongs recommend that teachers establish procedures and teach them to students using a three-step approach (Wong & Wong, 1998). They believed that being effective means the teacher has an assignment going the minute the students enter the classroom. According to White (2006), Harry Wong’s beliefs about the classroom are more focused on curriculum (p.1).

Wong’s philosophy is definitely not one for play in the learning environment, instead more geared towards the students working and producing at all times. As a matter of fact, the Wongs suggest for teachers to explain all classroom rules, procedures, and consequences to students (Wong & Wong, 1998). Wong believes in teacher readiness, meeting students, seating plan, and immediate feedback. His belief is led by the three most important student behaviors: discipline, procedures, and routines (Yale, n.d.). However, Wong and Wong (1998) recommend that all educators make the appropriate changes to their classroom management method in order to meet the individual needs of each classroom. Their main belief is efficient classroom management

generates an environment that is a safe and productive learning environment for all stakeholders (Wong & Wong, 1998).

Summary of Noninterventionist Classroom Management

The noninterventionist approach to classroom management focuses on proactive rather than the reactive strategies of the Interventionists. However, it is possible that optimal classroom management may include both proactive and reactive approaches. This approach is called Interactionalist classroom management,

Interactionalist Classroom Management

The interactionalist classroom management style is a combination of noninterventionist and interventionist styles. William Glasser (1997) was the major proponent of this management technique. Glasser's beliefs were based on his two theories: Reality Theory and Choice Theory. Choice Theory allows opportunities for students and teachers to understand one another's individual behavioral differences. Changes and accommodations are made in the classroom once the teacher recognizes how the students would like to be treated. In Reality Theory, redirection of misbehavior is tackled by employing logical consequences, such as individual improvement plans for students, teacher/student conferences, and providing ways for students to evaluate their own behavior. Ritter and Hancock (2007) define the interactionalist, like Glasser (1997), as believing students learn from interacting with peers in their environments. Interactionalists have a shared classroom management strategy versus interventionist and noninterventionist.

William Glasser

Based on Glasser's (1997) Reality and Choice Theories, insight in changing of misbehavior by means of logical consequences and conditioning would assist classroom management techniques used in the classroom setting. "Choice theory teaches that we are all driven by four psychological needs embedded in our genes: the need to belong, the need for power, the need for freedom, and the need for fun" (Glasser, 1997, p.17). Basically, *Choice Theory* presents opportunities for teachers and students to recognize the individual behavioral differences of others. In the course of these opportunities, modification and adjustments occur in the classroom due to teachers realizing and understanding how their students desire to be treated in order for students to place teachers into their personal worlds. When teachers and students display optimistic attitudes, classroom management becomes easier. By itself, *Choice Theory* concept has grown into being used a strategy employed as a BM and IM technique in classrooms today. Based on Glasser (1986, 1997), *Reality Theory* includes the redirection of misbehavior using logical consequences, which includes an array of factors needed to meet the basic needs of students: teachers indicating to students they care and possess a personal interest, teacher/student conferences, offering students ways to evaluate their own behavior, along with accepting responsibility, and creating improvement plans for individual students.

In further support of the interactionalist approach to classroom management, Lanoue (2009) showed that interactionalist beliefs can be trained in teachers, with the belief that interactionalist classroom management is superior to Interventionist or noninterventionist approaches to classroom management in fostering student outcomes.

Summary of Interactionalist Classroom Management

In summary, interventionists are generally proactive in providing consequences for student behavior, noninterventionists are generally proactive in providing learning environments that bypass negative student behaviors, and interactionalists manage their classroom with a combination of interventionist and noninterventionist approaches. Each of these philosophies promises superior student outcomes, so the next section provides a review of the empirical literature supporting or not supporting the interventionist, noninterventionist, and interactionalist approaches to classroom management.

Empirical Research on Classroom Management

Empirical research has demonstrated the importance of classroom management. Little and Akin-Little (2008) gave a self-assessment survey addressing classroom management practices to 149 teachers, encompassing four major components of classroom management: classroom rules, enhanced classroom environment, reinforcement strategies, and reductive procedures (Little & Akin-Little, 2008). The survey revealed 83% employed verbal reprimands in response to class disruptions, 97% showed verbal praise used as reinforcement for appropriate behavior, and 63% showed frequent behavioral problem students freedoms were revoked, while 10% showed the utilization of corporal punishment in response to chronic offenders. Further, Taila (2009) found that high school student outcomes were better when students perceived the teacher management approach as being well prepared and well organized. Together, the findings of Little and Akin-Little (2008) and of Taila (2009) demonstrate the wide range of teacher utilization of rules, procedures, and consequences in managing the classroom.

In a study of 22 teachers of grades 3-6, Gilpatrick (2010) found that “100% of the teachers felt that they could become discouraged with the ineffectiveness of their classroom management strategies. Yet, 64% of the teachers claimed that their current strategies are effective in minimizing the disruptions made by noncompliant students.” (p. 59-60). The findings of Gilpatrick (2010) demonstrate the importance of determining the optimal classroom management strategies for promoting positive student outcomes.

Empirical research comparing the interventionist, noninterventionist, and interactionalist approaches to classroom management began with the Beliefs on Discipline Inventory of Wolfgang & Glickman in 1980. The development of the Attitudes and Beliefs on Classroom Control (ABCC) by Martin, Yin, and Baldwin in 1998 allowed researchers to directly focus on classroom control from interventionist, noninterventionist, and interactionalist perspectives. However, the ABCC and the revised ABCC-R (Martin, Yin, Z., & Mayall, 2007) had unacceptable overlap in inter-item correlation and therefore lacked discriminant validity. For these reasons the Behavior and Instructional Management Scale (BIMS, Martin & Sass, 2010) was designed to provide a psychometrically sound measuring instrument for determining interventionist, noninterventionist, and interactionalist approaches to instructional and behavioral classroom management. Crucial to appreciating the background of the proposed study, interventionist, noninterventionist, and interactionalist management styles can now be reliably measured using the Behavioral and Instructional Management Scale (BIMS) (Brannon, 2010; Martin & Sass, 2010). “The most essential findings that are behind this study are from Martin and Sass (2010). Classroom management is “multi-faceted

contracts that includes two independent constructs: Behavior Management and Instructional Management” (Martin and Sass, 2010, p. 1126).

Martin and Sass (2010) performed three studies on the *Behavior and Instructional Management Scale (BIMS)*. These studies included 550 K-12 certified teachers from the southwestern United States. In the initial study, Martin and Sass (2010) assessed a shortened form of the 24-item BIMS using an exploratory factor analysis. The factor analysis showed a reliability of .85, respectively. As for the second study, the validity and reliability was investigated through using a confirmatory factor analysis in another shortened version of the survey. Both factors, behavioral and instructional management revealed a good internal consistency ($\alpha = .77$). After the previous studies, Martin & Sass (2010) felt discriminate and convergent validity should be tackled on the BIMS. This prompted the last study conducted. Martin and Sass (2010) did a comparison between the BIMS and a short version of the *Ohio State Teacher Efficacy Scale* (p.1126). The study revealed a good overall model fit. The findings of these studies verified the *Behavior and Instructional Management Scale* successfully measures teachers’ beliefs of their practices in the areas of behavior and instructional management. In addition to the verification of the BIMS, Martin and Sass suggest the 24-item BIMS for use in future studies to incorporate a relationship across gender, grade levels, and content areas.

Additional research studies have conferred similar results to Martin and Sass’s (1998, 2010) findings. Baker’s (2005) research study was seeking to discover the self-efficacy beliefs of Ohio’s 345 public school teachers. The teachers utilizing the survey came from an array of academic areas. The survey was designed by the author, which consisted of two components: a mixture of Brouwers and Tomic’s (2001) *Teacher*

Interpersonal Self-Efficacy and Bullock, Ellis, and Wilson's (1994) survey instrument.

Both components used a Likert scale to investigate the classroom management techniques of teachers. Overall, the authors reported a correlation between teachers' perceptions of classroom management and willingness to control unpleasant classroom behaviors displayed by students. Santiago (2012) found that, in high school teachers, BIMS scores varied across a wide range in both instructional classroom management and in behavioral classroom management.

Brannon (2010) explored the relationship between student academic success and classroom management beliefs on fifth grade English language arts and math scores. Brannon used the Attitudes and Beliefs on Classroom Control (ABCC) Inventory-R to identify teachers as interventionist, noninterventionist, and interactionalist, so that "the lower survey score results in a less controlling (noninterventionist) ideology, and the higher survey score results in a more controlling (interventionist) ideology" (p. 48). ELA and math achievement were assessed using the California Standards Test (CST) database. For the forty-one fifth grade teachers who participated, Brannon found that ELA and math scores were did significantly differ by group for 4th grade students, but cautioned, "It is important to note that the means are higher for ELA for noninterventionist, teachers with a less controlling ideology, while for Math, there was a higher mean for Interactionalist teachers that mix both controlling and noncontrolling ideologies."

While the lack of significant differences between interventionist, noninterventionist, and interactionalist teachers in student achievement suggests that classroom management styles may not be important in student achievement, Brannon's (2010) study suffered from weaknesses that must be addressed before concluding that

classroom management and student achievement are independent of each other. First, Brannon (2010) only included four (4) noninterventionist teachers. That is, because statistical power is a function of sample size (Creswell, 2003), Brannon's (2010) study may have lacked the statistical power to show significant differences. Further, Brannon used the ABCC-R, which has questionable psychometric properties (Martin a& Sass, 2010) compared to the more modern BIMS scale. Furthermore, Brannon combined ABCC-R people management with instructional management into one overall categorization that may not be reflective of behavioral and instructional classroom management. Additionally, while Brannon (2010) measured standardized scores on statewide tests (which can be useful), compliance with AYP guidelines are based on percent students passing core studies. Lastly, Brannon (2010) measured the relationship between demographic variables and teacher instructional style, but failed to include the covariates in determining the relationship between instructional style and student outcomes. This is important, because demographic variables can have effects on relationships (Baron & Kenny, 1986).

Additional empirical evidence from other scholarly works conflict with the conclusions of Brannon (2010). Bennett (2001) found that classroom climate is correlated with mathematics achievement. Khatib and Ghannadi (2011) studied English Language Learners and found significantly higher scores for the interventionist groups over the noninterventionist in the recognition and production of phrasal verbs. Moore (2008) assessed 270 students and 19 grammar school classroom teachers and concluded that "the findings of this research study suggest that relationships exist between some

classroom management strategies and higher student achievement scores in diverse elementary settings.”

The published literature includes reflections on the impact of experience and demographic variables on classroom management. Some studies evaluated here indicate a relationship between a teacher’s classroom management style (noninterventionist, interventionist, and interactionalist) and the teacher’s demographic variables (Baker 2005; Cerit, 2011; Little & Akin-Little, 2008). Santiago (2012) found that gender, number of years of teaching, and highest education degree can affect BIMS instructional management scores in high school teachers. Experience may matter, as Hicks (2012) suggests that classroom management skills may be learned ‘on the job’ (p. 87), while Green (2006) cautioned that “years of experience in the classroom do not guarantee exemplary results with regards to classroom management” (P. 88) while Lanoue (2009) showed that classroom management can be trained in teachers.

Further supporting the differential efficacy of classroom strategies, Green (2006) measured four elementary school “master classroom managers” and found that all four were in the interactionalist range of the ABCC. Green concluded, “While the number of participants was small, it can be theorized that other teachers identified as “master” classroom managers, using the same criteria for identification, would have beliefs and practices similar to those identified in this study” (p. 99-100).

Clearly, no study to date has definitively determined the relationship between instructional and behavioral classroom management strategies applied in the classroom and grammar school student outcomes in percent passing standardized tests of math and ELA. To determine the effect of teacher classroom management approach on student

outcomes above any possible effects of teacher demographics, what is needed is a study that incorporates teacher ideology derived from the BIMS (interventionist, noninterventionist, and interactionalist) in both instruction management and behavior management dimensions along with teacher demographics towards identifying differences in the percent of students passing statewide exams in reading, ELA and math.

Summary of Reviewed Literature

Successful classroom management may be critical for student achievement. The teacher is responsible for creating a positive community and maintaining control within his/her classroom. Tassell (2004) stated, “(Wheatley, 1994) Bennis (1985) suggests that leaders (a) have a vision of where they want to go, (b) must communicate this vision to those around them, (c) position themselves where they can be effective, and (d) have the courage to leave their comfort zones and walk a tightrope to where they want to go” (p.1). A teacher must begin from day one and establish their management system and continue throughout the school term. Teachers must be prepared for the students on a daily basis. Enerson, Johnson, Milner, & Plank (1997) stated, “The most effective plans are built around the objectives that you wish to achieve, which means that the first step in any kind of planning is clarifying and articulating those objectives” (p.16).

While this review of literature revealed the importance of classroom management, theories of classroom management, and the distinction between interventionist, noninterventionist, and interactionalist classroom management approaches, no studies to date have measured the differences between teacher instruction management and behavior management ideology (interventionist, noninterventionist, and interactionalist)

on the percent of third, fourth, and fifth grade students passing statewide exams in reading, ELA and math. This gap in the literature presented an open empirical question and the purpose of this study.

CHAPTER THREE: METHODOLOGY

Introduction

This research investigated possible differences in student achievement associated with teacher instructional and behavioral classroom management styles, operationally defined as interventionist, noninterventionist, and interactionalist (Martin & Sass 2010; Wolfgang & Glickman, 1980). The MANOVA statistical analyses contrasted interventionist, noninterventionist, and interactionalist instructional management (IM) and behavior management (BM) classrooms in standardized tests of reading, ELA, and math. This study was designed specifically to determine how teacher classroom management styles might differ in student outcomes, measured here as the percent passing CRCT statewide standardized tests of reading, ELA, and math.

This chapter begins with the research design, followed by the research questions and details of the participants for this study. Next, the setting/site, instrumentation, and procedures are provided. Following a description of the data analysis plan and testing of assumptions, this chapter ends with a summary of the methodology.

Research Design

A causal comparative, *ex post facto* design was employed to examine the research questions. Airasian and Gay (2003) suggest that *ex post facto* research “explores relationships among variables that cannot meet the stringent criteria for true experimental research.” (p. 11) *Ex post facto* designs examine findings after the fact, and in the present study, where teacher management styles (interventionist, noninterventionist, and interactionalist) are compared in percent of students passing CRCT standardized tests of

reading, ELA, and math. As Hale and Astolfi (2011) state, “The Causal-comparative or Ex-post facto design enables a researcher to examine cause-and-effect relationship(s) where it would be illegal, impossible, or unethical to manipulate the independent variable(s).” (p. 362) In this way, the *ex post facto* design differs from a true experiment because true experiments incorporate random assignment to groups, which is not tenable when exploring the possible differences between management style categories (noninterventionist, interventionist, or interactionalist) of teachers on student outcomes that are archived in a database. For these reasons, causal comparative, *ex post facto* designs are common in Education research related to teacher styles and to student outcomes (Hale & Astolfi, 2011; Madison, 2011; Moore, 2008; Morgan, 2009; Roesler, 2009; Santiago, 2012). However, causal comparative, *ex post facto* designs do not provide the high level of inference that is conferred by true experiments, so findings from the present study should be interpreted with appropriate caution (Campbell & Stanley, 1963; Creswell, 2003; Hale & Astolfi, 2011; Tabachnick & Fidell, 2007).

Teachers completed the Behavioral and Instructional Management Scale (BIMS), a reliable, standardized test of classroom Instruction Management (IM) and in Behavior Management (BM) styles, so that interventionist, noninterventionist, and interactionalist classroom could be identified and grouped. These classroom management style groups were then contrasted on standardized measures of student achievement. Student achievement was assessed as the percent of students per teacher passing the CRCT criteria in reading, ELA, and math, because accountability guidelines are based on percent passing. These archival data came from the district database.

These MANOVA analyses were initially designed as MANCOVA analyses to control for teacher demographics of sex, education level, and years of teaching experience, as well as grade level taught – but only if these variables were empirically demonstrated to be correlated with student outcomes. But because none of these potential covariates were significantly related to student outcomes (detailed in Chapter 4), MANCOVA would have been inappropriate (Creswell, 2003; Tabachnick & Fidell, 2007), and data were analyzed using MANOVA (multivariate analysis of variance) so that the effect of the independent variable of teacher management style (interventionist, noninterventionist, and interactionalist) could be evaluated on the linear combination of three dependent variables (CRCT reading, ELA, and math) (Creswell, 2003).

Research Questions

The research questions and hypotheses that guided this research are as follows:

Research Question 1: Instructional Management and Student Outcomes

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) based on teacher instructional management (IM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 1a

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of reading based on teacher instructional management (IM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 1b

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of English language arts based on teacher instructional management (IM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 1c

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of math based on teacher instructional management (IM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 2: Behavior Management and Student Outcomes

Are there significant differences in the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) based on teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist)?

Research Question 2a

Are there significant differences between teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist) and the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of reading?

Research Question 2b

Are there significant differences between teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist) and the percent of students

passing the standardized Criterion-Referenced Competency Tests (CRCT) of English language arts?

Research Question 2c

Are there significant differences between teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist) and the percent of students passing the standardized Criterion-Referenced Competency Tests (CRCT) of math?

The null hypotheses follow. The hypotheses for this study were derived from the Research Questions. Hypothesis 1 (IM and CRCT student achievement) is parallel to Research Question 1 and includes three parts: IM and reading (H1a), IM and ELA (H1b), and IM and math (H1c). Similarly, Hypothesis 2 (BM and student achievement) is parallel to Research Question 2 and includes three parts: BM and Reading (H2a), BM and ELA (H2b), and BM and Math (H2c)

Null Hypothesis 1

Hypothesis 1: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing standardized tests of reading, English language arts, and math.

IM and Reading

H_{1a}: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) and the

percent of third, fourth, and fifth grade students passing the standardized CRCT reading test.

IM and ELA

H_{1b}: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) in the percent of third, fourth, and fifth grade students passing the ELA portion of the CRCT.

IM and Math

H_{1c}: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) in the percent of third, fourth, and fifth grade students passing the math portion of the CRCT.

Null Hypothesis 2

Hypothesis 2: There are no significant differences between teacher behavior management (BM) style (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing standardized tests of reading, English language arts, and math.

BM and Reading

H_{2a}: There are no significant differences between teacher behavior management (BM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing the reading portion of the CRCT.

BM and ELA

H_{2b}: There are no significant differences between teacher Behavior Management (BM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing the ELA portion of the CRCT.

BM and Math

H_{2c}: There are no significant differences between teacher behavior management (BM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing the math portion of the CRCT.

Participants

Participants were certified teachers from three elementary schools located in a district in northwest Georgia. Third, fourth, and fifth grade teachers were represented. Teacher certification ranges from a T-4 (bachelor's degree) to T-7 (doctoral degree). According to the data collected from the Georgia Department of Education (2010) the faculty of the three schools included nine administrators and one hundred teachers. All teachers were 100% highly qualified and are teaching within their content areas. All one hundred teachers employed within the three schools were invited to participate in the study via electronic mail invitation from the assistant superintendent of schools for the district. Of the 100 potential participants, 88 logged on, 2 refused informed consent, and 2 quit before completing the survey, leaving 83 who completed the study, reflecting an 83% volunteer response rate. One participant was eliminated for extreme scores (more than 10 standard deviations from the study mean), resulting in 83 participants available for statistical analysis ($n = 83$),

For this study, a convenience sampling was used. A convenience sample is a form of non-probability sampling where the participants are chosen based on their accessibility, availability, and proximity to the researcher (Urdan, 2005). The researcher identified these rural elementary schools by their location, discipline records, and test scores.

The students' CRCT results were secured from the school district's central office and the Georgia State Department of Education website. The anonymity of the students was safeguarded through the elimination of any identifying information other than the grade level. Classrooms were coded by the assistant superintendent, so the researcher could not identify students by classroom. The assistant superintendent also labeled the scores with a number system. To foster alignment of the data, the coded number system was designed to align the classroom performance data from the school district with teacher BIMS survey results.

Setting/Site

The study was conducted in three elementary schools, located in a Northwest Georgia county, which serve about 1100 students. The school system administers educational and support services for approximately 2053 students in grades Pre-K through 12. There are three elementary schools (Pre-K through 5th grade) that feed into the county's one middle school (6th through 8th grade), and the middle school feeds into the county's one high school.

According to the Georgia Department of Education, for the 2011-2012 school year, 59% of the students were economically disadvantaged and 10% of the student

population was classified as students with disabilities. Student academic performance on state assessments contributed to the district's achievement of making *Adequately Yearly Progress* for the 2009 school year, when the district reported total enrollment ethnicities for black students at 10%, Hispanic 2%, white 85%, and 3% multiracial students. All elementary schools in the district abide by the same discipline policy (Appendix A). The survey was conducted online, so each participating teacher used a computer to complete the survey in a site and setting chosen by the participant.

Instrumentation

Demographic Survey

Teacher demographics were acquired using a demographic survey, including years of experience, gender, highest degree obtained, and grade level taught (Appendix F). Teachers indicated their gender (male or female), years of teaching experience (less than five years, 5 to 10 years, or more than 10 years), grade level (3rd, 4th, 5th) and highest education degree obtained (bachelor's degree, master's degree, specialist degree, or doctoral degree). These demographic questions, which are similar to the demographic questions employed by Nix (1998), and by Carson and Chase (2009), were acquired for potential use as covariates in hypothesis testing so that any difference in student outcomes based on instructional strategy groups could be assessed above any possible effects of teacher sex, education level, years of experience, and grade level taught.

The Behavioral and Instructional Management Scale (BIMS)

The Behavioral and Instructional Management Scale (BIMS) is a short, concise psychometrically reliable instrument that measures a teacher's insight into their style of classroom management. "Behavioral Management (BM) is a form of discipline that includes pre-planned efforts to prevent misbehavior as well as the teacher's response to the behavior. Instructional Management (IM) addresses teachers' instructional aims and methodologies and includes aspects such as monitoring seatwork and structuring daily routines as well as the teacher's use of lecture and student practice versus interactive, participatory approaches to instruction" (Martin & Sass, 2010, p.1126).

The BIMS was created in five stages to develop the subscales of Behavioral Management and Instructional Management. Martin and Sass (2010) began by developing operational definitions for the hypothesized dimensions. Next, a significant set of items were developed, based on the operational definitions, along with existing literature, classroom observations, and classroom proficiency. Then, students were enrolled in a classroom management and motivation graduate class. In the class, the students were surveyed and required to verify the clarity and content validity of each piece of the six-point scale, which ranged from (1) "not at all" to (6) "very well/very clear." Afterwards, the items were reviewed and modified based on the graduate student feedback and "pilot tested using a small sample of K-12 teachers enrolled in the class" (Martin & Sass, 2010, p. 1126). The modification and review of the questions led another small pilot test of teachers. In conclusion of the five step process, the Behavioral Management and Instructional Management survey was arranged into two subscales with 24 items of the recommended classroom management concepts: Behavioral Management (12 items) and Instructional Management (12 items). A six-point answer scale ranging

from “strongly agree” to “strongly disagree” was employed and scoring for some items was reversed. Summative scores ranged from 12-70 for behavioral management and 12 and 70 for instructional management. Martin and Sass (2010) assessed a shortened form of the BIMS using an exploratory factor analysis followed by confirmatory factor analysis. Both factors, behavioral management and instructional management, revealed a good internal consistency ($\alpha = .77$). A score for each scale (behavioral management or instructional management) is derived by averaging the responses of the scale items (Martin & Sass, 2010).

Participants were categorized as interventionist, noninterventionist, and interactionalist based on the threshold schema of the Brannon (2010) and of Martin and Sass (2010). Behavior Management and Instructional Management were each scored using the same thresholds: scores between 1.00 and 2.65 were coded as Non-Interventionist; scores between 2.70 and 4.33 were coded as Interactionalist; and scores above 4.33 were coded as Interventionist. BIMS scores and non-interventionist, interactionalist, interventionist frequencies for Behavior Management are displayed in Table 1. Of 83 participants, 3 were non-interventionists, 32 were interactionalist, and 48 were categorized as interventionist in Behavior Management.

BIMS scores and non-interventionist, interactionalist, interventionist frequencies for Instructional Management are displayed in Table 2. Of 83 participants, 23 were non-interventionists, 55 were interactionalist, and 5 were categorized as interventionist in Instructional Management.

Table 1

Behavior Management: Non-Interventionist, Interactionalist, Interventionist Frequencies

| BM Score | Non-Interventionist | Interactionalist | Interventionist |
|----------|---------------------|------------------|-----------------|
| 1.00 | 1 | 0 | 0 |
| 2.00 | 2 | 0 | 0 |
| 2.80 | 0 | 1 | 0 |
| 2.83 | 0 | 2 | 0 |
| 3.00 | 0 | 3 | 0 |
| 3.17 | 0 | 1 | 0 |
| 3.40 | 0 | 1 | 0 |
| 3.50 | 0 | 1 | 0 |
| 3.67 | 0 | 1 | 0 |
| 3.83 | 0 | 2 | 0 |
| 4.00 | 0 | 7 | 0 |
| 4.17 | 0 | 4 | 0 |
| 4.33 | 0 | 9 | 0 |
| 4.50 | 0 | 0 | 5 |
| 4.67 | 0 | 0 | 12 |
| 4.83 | 0 | 0 | 8 |
| 5.00 | 0 | 0 | 4 |
| 5.17 | 0 | 0 | 3 |
| 5.33 | 0 | 0 | 6 |
| 5.50 | 0 | 0 | 2 |
| 5.80 | 0 | 0 | 1 |
| 6.00 | 0 | 0 | 7 |
| Total | 3 | 32 | 48 |

Table 2

Instruction Management: Non-Interventionist, Interactionalist, Interventionist

Frequencies

| IM Score | Non-Interventionist | Interactionalist | Interventionist |
|----------|---------------------|------------------|-----------------|
| 1.67 | 1 | 0 | 0 |
| 1.83 | 4 | 0 | 0 |
| 2.00 | 4 | 0 | 0 |
| 2.17 | 2 | 0 | 0 |
| 2.33 | 4 | 0 | 0 |
| 2.50 | 8 | 0 | 0 |
| 2.67 | 0 | 5 | 0 |
| 2.80 | 0 | 1 | 0 |
| 2.83 | 0 | 6 | 0 |
| 3.00 | 0 | 16 | 0 |
| 3.17 | 0 | 8 | 0 |
| 3.33 | 0 | 4 | 0 |
| 3.50 | 0 | 2 | 0 |
| 3.67 | 0 | 4 | 0 |
| 3.83 | 0 | 5 | 0 |
| 4.00 | 0 | 2 | 0 |
| 4.17 | 0 | 2 | 0 |
| 4.50 | 0 | 0 | 2 |
| 4.67 | 0 | 0 | 1 |
| 4.83 | 0 | 0 | 1 |
| 5.17 | 0 | 0 | 1 |
| Total | 23 | 55 | 5 |

As for the reliability and validity of the instrument, Martin and Sass (2010) tested the BIMS in three studies. For study one, the BIMS questions were reduced to twelve items using an EFA with a smaller section of the sample (Martin & Sass, 2010). For study two, the rest of the sample was employed to assess the psychometric properties of the 12-item BIMS using CFA, along with attaining reliability estimates for each subscale

(Martin & Sass, 2010). Study two of Martin and Sass (2010) uncovered good internal consistency, as indicated by Cronbach's alphas for six Behavioral Management items (.77) and for the six Instructional Management items (.77) (Martin & Sass, 2010), which exceed the threshold .70 suggested by Nunnally (1978; Tabachnick & Fidell, 2007) for survey research. Lastly, study three assessed the discriminate and convergent validity of the 12-item BIMS (Martin & Sass, 2010) and showed the relationships between the two subscales of the BIMS which exposed relatively independent relationships, hence giving evidence of discriminate validity (Martin & Sass, 2010). Results showed a statistical significant inverse relationship between Instructional Management and parts of teacher efficacy (Martin & Sass, 2010). "The three studies presented provide evidence for a brief, psychometrically sound instrument designed to measure the aspects of teachers' beliefs toward managing behavior and instruction" (Martin & Sass, 2010, p. 1132). The Cronbach's alpha internal reliability measured in the present study was .62 for Instructional Management and the alpha for Behavior Management was .85.

Criterion Reference Competence Test (CRCT)

The CRCT was developed in 2000. The CRCT questions were developed by a committee of Georgia educators utilizing test questions aligned to GPS, now CCGPS, developed by the contracted testing company. The state of Georgia has transitioned from GPS to Common Core State Standards (CCSS) in 2012-2013; therefore, these standards are identified as CCGPS. A pilot study was administered in several counties throughout the state to ensure the questions were accurate and challenging enough to provide the results desired from administering the test to Georgia pupils (GADOE, 2012). The CRCT

is designed to measure how well students acquire the skills, along with the knowledge of the Georgia Performance Standards (GADOE, 2012). It is published by Houghton Mifflin Company located in Boston, the largest educational publisher in the United States. The CRCT was implemented in Georgia in the spring of 2000 in grades 4, 6, and 8 for the content areas of Reading, ELA, and math (GADOE, 2012). In later years, additional grade levels and subjects were included in the CRCT. Students in grades 3-8 take the CRCT every spring to determine if they obtained the appropriate knowledge in the identified curriculum for their current grade level to advance to the next grade level. The CRCT assesses academic achievement and success of students, classes, schools, and systems across the state of Georgia. The information is used to identify a student's weaknesses and strengths related to the Common Core Georgia Performance Standards (CCGPS), along with measuring the educational quality provided in the State of Georgia (GADOE, 2012).

The CRCT is divided into five sections: reading, language arts, math, science, and social studies. Each content area is divided into two sections, which have a total of fifty to seventy questions. Raw scores are converted into subscale scores. The CRCT scoring range is 750-800 (Did Meet Standard); 800-849 (Met Standard); and 850-950 (Exceeded Standard). Students who score below 800 on the CRCT are determined to be below grade level and maybe retained, remediated and retested, or placed in a monitoring system within their school. Student outcomes were coded as 1 for passing (800+) and 0 for not passing (<800) CRCT content areas of reading, math, and ELA.

“Validity of the CRCT is evidenced from the process used in the development of the instrument; primarily a ‘test development cycle’ that starts with the GPS curriculum.

Committees of Georgia educators review the GPS and recommend the ‘test blueprint’ and the ‘test specification’ of items that can be included on the test. ‘Content domain specifications’ and ‘test item specifications’ are produced to give detail to the writing phase of the test development; together they are used to make the ‘CRCT Content Descriptions’”(Wallace, n.d, p.1).

“Reliability of the CRCT is provided by two measures: Cronbach’s alpha and the SEM. Results for Cronbach’s alpha are used to determine whether all scores are a good representation of a students’ performance and are reliable (.858 to .932) in a range of 0 to 1. Conditional Standard Errors of Measurement (CSEM) are used to define a range of ‘cut scores’ within which the students are meeting or exceeding performance. CSEM’s are calculated using Hambleton and Swaminathan’s procedure and formula” (Wallace, n.d., p.1).

Survey Monkey

The researcher used the Survey Monkey’s web-based survey tool to administer the BIMS survey online. Survey Monkey is an online survey service. It is recognized as an efficient and user-friendly tool for creating online surveys. Each participant was asked to click on a link sent in an e-mail provided by the participating organization. By clicking on the link, participants were immediately connected to the informed consent form and the online survey to begin the study. On the first page of the survey, participants provided their consent by clicking on the “agree” button. Once agreement was obtained, participants proceeded to the qualifying items. The participants completed the survey using their computer keyboard and mouse. SurveyMonkey stored the encrypted data for

each participant response and collated the information into spreadsheet form for downloaded. SurveyMonkey downloads were protected by password security.

Procedures

Recruitment

After permission was granted by the Institutional Review Board (IRB) at Liberty University (Appendix G), a letter (Appendix B) was sent to the target school system's assistant superintendent explaining the study. Each principal also received an email explaining the research study and how all data were to be collected. The assistant superintendent agreed to code classrooms CRCT performance corresponding to teachers and to use this coding to invite teachers via email, so that teacher anonymity and privacy were protected.

Data Collection

Potential participants were contacted via email (Appendix C), including an invitation to participate, an explanation of the study, and a link that takes them directly to the informed consent page that begins the online survey that includes the BIMS and the demographic questionnaire. Participants used their mouse and keyboard to complete the survey. At the end of the survey, the teachers were thanked for completing the demographic questionnaire and the BIMS survey.

CRCT (Criterion Reference Competency Test) scores were accessed through the GADOE (Georgia Department of Education) website and through the student information system of each school participating in the study. The data person compiled all of the CRCT scores of students in the classrooms of the teachers who completed the

demographic questionnaire and BIMS survey. Codes were used to protect participant identity. The CRCT scores were sent to the researcher in an excel document.

Data Management

Survey data were downloaded from Survey Monkey into a spreadsheet (Microsoft Excel, Microsoft Corp., Redmond Washington). The CRCT scores were emailed in an Excel file to the researcher from the system's data person. The survey and CRCT data were then combined and checked for errors in preparation for data analysis. All descriptive and MANOVA analyses for hypothesis testing were conducted using SPSS software (SPSS Inc, IBM Corp., Chicago, Illinois, version 19.0). The data were backed up in multiple locations in preparation for analyses. All data will be destroyed five years after the completion of the dissertation.

Data Analysis

Hypotheses were tested using MANOVA (multivariate analysis of variance). MANOVA was chosen for testing the hypotheses because each hypothesis included multiple related scalar dependent variables (reading, ELA, math) and one independent variable (group: interventionist, noninterventionist, and interactionalist) (Creswell, 2003; Tabachnick & Fidell, 2007). Note that multivariate analysis of covariance (MANCOVA) was initially considered because it was important to include a statistical plan to account for the potential effects of grade level taught, as well as teacher demographics of sex, education level, and years of teaching experience, but none of these potential covariates were significantly related to student outcomes (detailed in Chapter 4), so MANCOVA would have been inappropriate (Creswell, 2003; Tabachnick & Fidell, 2007). MANOVA

was the appropriate statistic because only MANOVA can incorporate three related dependent variables in an analysis designed to determine differences between teacher management styles (Creswell, 2003; Howell, 2012; Tabachnick & Fidell, 2007).

Therefore, Hypothesis 1 was tested using multivariate analysis of variance MANOVA, with localizing pairwise comparisons to test individual sub-hypotheses (H1a, H1b, H1c). For these analyses, the dependent variables were the percent of students per teacher with passing reading, ELA, and math scores from the CRCT (Criterion Reference Competency Test). The independent variable was teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) (see Table 3).

Table 3

Data Analysis Summary Table

| Research Question | Hypothesis | Independent Variable | Dependent Variable | Statistic |
|-------------------|------------|----------------------|--------------------|-----------|
| RQ1 | H1 | IM Style | Reading (H1a) | MANOVA |
| | | | ELA (H1b) | |
| | | | Math (H1c) | |
| RQ2 | H2 | BM Style | Reading (H2a) | MANOVA |
| | | | ELA (H2b) | |
| | | | Math (H2c) | |

Hypothesis 2 was tested using multivariate analysis of variance MANOVA, with localizing pairwise comparisons to test individual sub-hypotheses (H2a, H2b, H2c). For these analyses, the dependent variables were the percent of students per teacher passing

reading, ELA, and math scores on the CRCT (Criterion Reference Competency Test).

The independent variable was teacher behavior management (BM) styles (interventionist, noninterventionist, and interactionalist) (Table 3).

Results are presented as follows. Descriptive statistics for demographic and measured variables include the means, standard deviations, frequencies, and percentages, as appropriate, in text and in tables. MANOVA results include the model source table for the overall model, including the F- and p-values necessary to test the hypotheses.

Multivariate significance was determined using Pillai's trace (Howell, 2012). Effect sizes are expressed as partial eta squared (η^2) (Tabachnick & Fidell, 2007). Figures are provided to visually display results as a supplement to the text. All hypotheses were tested at a statistical significance threshold of $p < .05$. The data analysis plan is summarized in Table 3.

Testing of Assumptions

Data were examined to determine if MANOVA assumptions were met. MANOVA was the appropriate statistic for testing the hypotheses because this study included multiple scalar dependent variables (reading, ELA, math) and one independent variable (group: interventionist, noninterventionist, and interactionalist) (Creswell, 2003; Tabachnick & Fidell, 2007) (Table 1).

The crucial assumption of MANOVA is independence. In true experiments, independence is achieved through random assignment to groups (Creswell, 2003; Tabachnick & Fidell, 2007). While random assignment was not feasible in the present study, which investigated the relationship between the classroom management styles of

teachers and student outcomes, independence was fostered in this study in that the scores from one teacher were not dependent on the scores of another teacher because participants took the survey individually and not as a group.

Because there was no random assignment in this study, it was important to consider relevant variables as potential covariates to be included in the analysis (Tabachnick & Fidell, 2007). That is, it is important to statistically account for variables that could impact the outcome variables and could be differentially spread across groups (Creswell, 2003). In the literature review that provided the foundation for this study, empirical evidence from published literature indicted teacher demographic variables of gender, number of years of teaching, and highest education degree can affect BIMS instructional management scores (Baker 2005; Cerit, 2011; Little & Akin-Little, 2008; Santiago 2012). Therefore, this study design included the consideration of gender, number of years of teaching, and highest education degree as potential covariates, along with grade level taught. While none of these potential covariates were included in the hypothesis testing because they were not statistically related to outcomes (detailed in Chapter 4), considering these potential covariates was important because MANOVA assumes random assignment to groups, which was not possible in the present study.

The minor assumptions of MANOVA regard the shape of the data and the relationship between dependent variables. While MANOVA assumes linearity and normality, including skew, kurtosis, homogeneity of variance, and homogeneity of covariance, MANOVA is robust to violations of linearity and normality, which is why these assumptions are considered to be minor assumptions (Creswell, 2003; Tabachnick & Fidell, 2007). Linearity was assessed via visual inspection of normality (Q-Q) plots

generated in SPSS. Multivariate outliers were assessed using Mahalanobis Distance analysis (Cruz, 2007; Tabachnick & Fidell, 2007).

Homogeneity of covariance was tested using Box's M Test of Equality of Covariance Matrices (Box, 1949) and normality was assessed using the Shapiro-Wilk Test of Normality (Shapiro, Wilk, & Chen, 1968) in SPSS software (version 20.0, SPSS, IBM Corp., Chicago Illinois). Shapiro-Wilk Test of Normality was chosen over the Kolmogorov-Smirnov test because Shapiro-Wilk is less problematic than the Kolmogorov-Smirnov test in providing misleading conclusions regarding normality (Steinskog, Tjostheim, & Kvamsto, 2007) and because Shapiro-Wilk is more powerful than Kolmogorov-Smirnov in detecting non-normality with samples smaller than 2000 (Razali & Wah 2011), as in the present study.

MANOVA also assumed that dependent variables are correlated with each other, so a test of simple correlations was conducted among the dependent variables, detailed in the results chapter. Kurtosis indicates the peakedness or flatness of the distribution of scores. The kurtosis value is computed by dividing the kurtosis statistic by the kurtosis standard error (SE): (Kurtosis Value)/(Kurtosis SE) (Muijs, 2010; Weinberg & Abramowitz, 2008). If the kurtosis value is $> \pm 2.00$, there is significant peakedness (i.e., the distribution is leptokurtic) or flatness (i.e., the distribution is platykurtic) of the distribution of scores around the mean score (Muijs, 2010; Weinberg & Abramowitz, 2008). .

Lastly, MANOVA assumes an adequate sample size (Hair, Black, Babin, & Anderson 2010). While the sample size for this study was determined by the number of schools within the school district and the willingness of teachers to participate, tests of

power revealed that, assuming a 95% confidence interval and an effect size of .80 standard deviations, statistically significant differences would be detected 80% of opportunities (Power = .80) with as few as 26 per group in a 3-group study (Cohen, 1992, Table 2, p. 158).

Summary of Methodology

It is presently unclear how classroom management strategies are associated with student outcomes, which is important to clarify to benefit each child, as well as to comply with government mandates, like NCLB, which requires that all students in the state of Georgia pass standardized tests of reading, ELA, and math. This study addressed the important topic of classroom management in meeting the demands of No Child Left Behind by using methodology to determine whether classroom management strategies are associated with student outcomes, above any possible effects of teacher sex, years of experience, highest degree obtained, and grade level taught. Teachers of grades 3, 4, and 5 were surveyed using the BIMS, so that different instructional and behavioral classroom management strategies (interventionist, noninterventionist, and interactionalist) could be contrasted with the percent of students passing statewide standardized tests of reading, ELA, and math, using MANOVA at a statistical significance threshold of $p < .05$. This line of investigation can potentially help to inform parents, teachers, administrators, university pedagogists, and governmental agencies regarding the role of classroom management in student outcomes, fostering a better educated, more equitable society.

CHAPTER FOUR: RESULTS

Introduction

This study was designed to explore the possibility that student achievement might differ by teacher instructional and behavioral classroom management styles, operationally defined as interventionist, noninterventionist, and interactionalist, using the criteria of Martin and Sass (2010). Teachers were surveyed for demographics and their classroom management styles, which were cross-tabulated with classroom data on passing statewide standardized tests to explore the role of instructional management (Research Question 1) and Behavior Management (Research Question 2) on the percent of student passing statewide Criterion-Referenced Competency Tests (CRCT) in reading, math, and ELA.

This chapter begins with participant demographic descriptives, including gender, years of teaching experience, education level, and grade level taught, followed by hypothesis testing to address the research questions. Each section is summarized in the context of hypothesis testing. This chapter ends with a summary of findings.

Participant Demographic Descriptives

Participant demographic descriptives include gender, years of teaching experience, education level, and grade level taught organized by instructional style. Participant demographics were summarized in preparation for hypothesis testing.

Gender

Of 84 participants, 52 were female (62%) and 32 were male (38%). Gender frequencies and percentages by Instructional Management Style are displayed in Table 4

and Gender frequencies and percentages by Behavior Management Style are displayed in Table 5.

Table 4

Gender by Instructional Management Style

| Group | Statistic | Female | Male | Total |
|---------------------|-----------|--------|------|-------|
| Non-Interventionist | Count | 14 | 9 | 23 |
| | % | 61% | 39% | 100% |
| Interactionalist | Count | 35 | 20 | 55 |
| | % | 64% | 36% | 100% |
| Interventionist | Count | 2 | 3 | 5 |
| | % | 40% | 60% | 100% |
| Total | Count | 51 | 32 | 83 |
| | % | 61% | 39% | 100% |

Table 5

Gender by Behavior Management Style

| Group | Statistic | Female | Male | Total |
|---------------------|-----------|--------|------|-------|
| Non-Interventionist | Count | 1 | 2 | 3 |
| | % | 33% | 67% | 100% |
| Interactionalist | Count | 19 | 13 | 32 |
| | % | 59% | 41% | 100% |
| Interventionist | Count | 31 | 17 | 48 |
| | % | 65% | 35% | 100% |
| Total | Count | 51 | 32 | 83 |
| | % | 61% | 39% | 100% |

Years of Teaching Experience

Overall, twenty participants (24%) had less than five years of teaching experience, 35 (42%) had five to ten years of teaching experience, 17 (20%) had ten to fifteen years of teaching experience, and 12 (14%) had more than fifteen years of teaching experience. Years of Teaching Experience frequencies and percentages by Instructional Management Style are displayed in Table 6 and Years of Teaching Experience frequencies and percentages by Behavior Management Style are displayed in Table 7.

Table 6

Years of Teaching Experience by Instructional Management Style

| Group | Statistic | <5 | 5-10 | 10-15 | 15+ | Total |
|---------------------|-----------|-----|------|-------|-----|-------|
| Non-Interventionist | Count | 8 | 7 | 3 | 5 | 23 |
| | % | 35% | 30% | 13% | 22% | 100% |
| Interactionalist | Count | 11 | 25 | 12 | 7 | 55 |
| | % | 20% | 45% | 22% | 13% | 100% |
| Interventionist | Count | 1 | 2 | 2 | 0 | 5 |
| | % | 20% | 40% | 40% | 0% | 100% |
| Total | Count | 20 | 34 | 17 | 12 | 83 |
| | % | 24% | 41% | 20% | 14% | 100% |

Table 7

Teaching Experience by Behavioral Management Style

| Group | Statistic | <5 | 5-10 | 10-15 | 15+ | Total |
|---------------------|-----------|-----|------|-------|-----|-------|
| Non-Interventionist | Count | 0 | 1 | 2 | 0 | 3 |
| | % | 0% | 33% | 67% | 0% | 100% |
| Interactionalist | Count | 8 | 14 | 7 | 3 | 32 |
| | % | 25% | 44% | 22% | 9% | 100% |
| Interventionist | Count | 12 | 19 | 8 | 9 | 48 |
| | % | 25% | 40% | 17% | 19% | 100% |
| Total | Count | 20 | 34 | 17 | 12 | 83 |
| | % | 24% | 41% | 20% | 14% | 100% |

Education Level

Overall, 36 participants (43%) had a BA/BS degree, 27 (32%), had a Masters degree, 16 (19%), were Specialists and 5 (6%) had a Doctoral degree. Education level frequencies and percentages by instructional management style are displayed in Table 8 and Education level frequencies and percentages by behavior management style are displayed in Table 9.

Table 8

Educational Level Instructional Management Style

| Group | Statistic | BA/BS | Masters | Specialist | Doctoral | Total |
|---------------------|-----------|-------|---------|------------|----------|-------|
| Non-Interventionist | Count | 10 | 7 | 4 | 2 | 23 |
| | % | 43% | 30% | 17% | 9% | 100% |
| Interactionalist | Count | 23 | 18 | 12 | 2 | 55 |
| | % | 42% | 33% | 22% | 4% | 100% |
| Interventionist | Count | 2 | 2 | 0 | 1 | 5 |
| | % | 40% | 40% | 0% | 20% | 100% |
| Total | Count | 35 | 27 | 16 | 5 | 83 |
| | % | 42% | 33% | 19% | 6% | 100% |

Table 9

Education by Behavior Management Style

| Group | Statistic | BA/BS | Masters | Specialist | Doctoral | Total |
|---------------------|-----------|-------|---------|------------|----------|-------|
| Non-Interventionist | Count | 1 | 1 | 0 | 1 | 3 |
| | % | 33% | 33% | 0% | 33% | 100% |
| Interactionalist | Count | 13 | 11 | 8 | 0 | 32 |
| | % | 41% | 34% | 25% | 0% | 100% |
| Interventionist | Count | 21 | 15 | 8 | 4 | 48 |
| | % | 44% | 31% | 17% | 8% | 100% |
| Total | Count | 35 | 27 | 16 | 5 | 83 |
| | % | 42% | 33% | 19% | 6% | 100% |

Grade Level Taught

Participant teaching grade level descriptives are displayed in Table 4. Thirty participants (35%) taught 3rd grade, 32 (39%) taught 4th grade, and 22 (27%) taught 5th grade. Grade level taught frequencies and percentages by instructional management style are displayed in Table 10 and education level frequencies and percentages by behavior management style are displayed in Table 11.

Table 10

Grade Level Taught by Instructional Management Style

| Group | Statistic | 3rd | 4th | 5th | Total |
|---------------------|-----------|-----|-----|-----|-------|
| Non-Interventionist | Count | 9 | 11 | 3 | 23 |
| | % | 39% | 48% | 13% | 100% |
| Interactionalist | Count | 18 | 19 | 18 | 55 |
| | % | 33% | 35% | 33% | 100% |
| Interventionist | Count | 2 | 2 | 1 | 5 |
| | % | 40% | 40% | 20% | 100% |
| Total | Count | 29 | 32 | 22 | 83 |
| | % | 35% | 39% | 27% | 100% |

Table 11

Grade Level Taught by Behavior Management Style

| Group | Statistic | 3rd | 4th | 5th | Total |
|---------------------|-----------|-----|-----|-----|-------|
| Non-Interventionist | Count | 9 | 11 | 3 | 23 |
| | % | 39% | 48% | 13% | 100% |
| Interactionalist | Count | 18 | 19 | 18 | 55 |
| | % | 33% | 35% | 33% | 100% |
| Interventionist | Count | 2 | 2 | 1 | 5 |
| | % | 40% | 40% | 20% | 100% |
| Total | Count | 29 | 32 | 22 | 83 |
| | % | 35% | 39% | 27% | 100% |

Summary of Participant Descriptives

Participants were diverse in gender, education level, and years of teaching experience. The 3rd, 4th, and 5th grade levels were each well represented. This sample was considered to be sufficient for testing the hypotheses of the study.

Hypothesis Testing

Hypothesis testing was conducted, using MANOVA so that the effects of behavior management and instruction management on the percent of students passing standardized CRCT tests (reading, math, and language arts) could be assessed. Behavior management and instruction management results are shown separately, in parallel with Hypothesis 1 (IM) and Hypothesis 2 (BM).

Preliminary Testing

MANOVA is appropriate only when the dependent variables are correlated and normally distributed (Creswell, 2003; Howell, 2012; Tabachnick & Fidell, 2007).

Therefore, preliminary testing was conducted to determine that (a) outcome variables fostered normality, (b) the dependent variables were correlated, and (c) to determine whether potential covariates correlated with the dependent variables.

In the present study, the dependent variables of reading, math, and language arts were well correlated, as shown in Table 12.

Table 12

Intercorrelation of Dependent Variables

| Variable | Statistic | Reading | Math | Language Arts |
|---------------|-----------|---------|--------|---------------|
| Reading | <i>r</i> | 1 | .47 | .54 |
| | <i>p</i> | | <.0001 | <.0001 |
| Math | <i>r</i> | .47 | 1 | .42 |
| | <i>p</i> | <.0001 | | <.0001 |
| Language Arts | <i>r</i> | .54 | .42 | 1 |
| | <i>p</i> | <.0001 | <.0001 | |

Demographic covariates were tested to determine their relationship with the dependent variables because covariates are assumed to be correlated with the dependent variables (Creswell, 2003; Tabachnick & Fidell, 2007). Table 13 shows that experience, grade level, sex, and education level categories were not significantly different with

respect to the dependent variables of reading, math, and language arts (each $p > .05$ by ANOVA).

Table 13

ANOVA for Differences in Dependent Variables between Potential Covariate Categories

| Variable | Statistic | Reading | Math | Language Arts |
|-------------|------------|---------|------|---------------|
| Experience | $F (3,79)$ | 0.5 | 0.3 | 0.2 |
| | p | .68 | .80 | .87 |
| Grade Level | $F (2,80)$ | 0.7 | 0.9 | 0.7 |
| | p | .49 | .41 | .50 |
| Sex | $F (1,82)$ | 2.8 | 1.4 | 0.02 |
| | p | .10 | .24 | .88 |
| Education | $F (3,79)$ | 0.2 | 1.6 | 1.2 |
| | p | .90 | .19 | .32 |

In summary, the dependent variables were significantly intercorrelated, consistent with the assumptions of MANOVA (Howell, 2012). However, the potential covariates of experience, grade level, sex, and education were not significantly related with CRCT reading, math, or ELA. Therefore, these possible covariates were not included in hypothesis testing and hypotheses were tested using MANOVA, not MANCOVA.

Normality for individual dependent variables was determined using Shapiro-Wilk test of normality, in addition to visual inspection of QQ plots of observed versus expected values, skew, and kurtosis. Equality of variance between groups was tested using Levene's Test of Homogeneity of Variance. Box's Test of Equality of Covariance Matrices from the MANOVA module in SPSS software was used to assess the equality of covariance assumption of MANOVA. Mahalanobis Distance analysis revealed no

multivariate outliers ($M = 3.01$, $Min = .08$, $max = 10.40$, $SD = 2.49$), with all data falling within 3 standard deviations of the mean (Cruz, 2007; Tabachnick & Fidell, 2007).

Reading: Tests of Normality

Reading achievement was assessed per classroom as the percent of students passing the CRCT Reading exam. This reading variable did not violate the normality assumption of MANOVA by the Shapiro-Wilk test ($p = .10$). The skew of -0.29 indicated a slight negative skew, and skew / standard error of skew = 1.1 , which was below the threshold of 2.0 (Weinberg & Abramowitz, 2008). The kurtosis of -0.16 indicated a slightly platykurtic distribution, and kurtosis / standard error of kurtosis = 0.3 indicated no significant kurtosis. The normality plot of percent of students passing the CRCT Reading exam versus expected values shows no obvious non-normality (Figure 2).

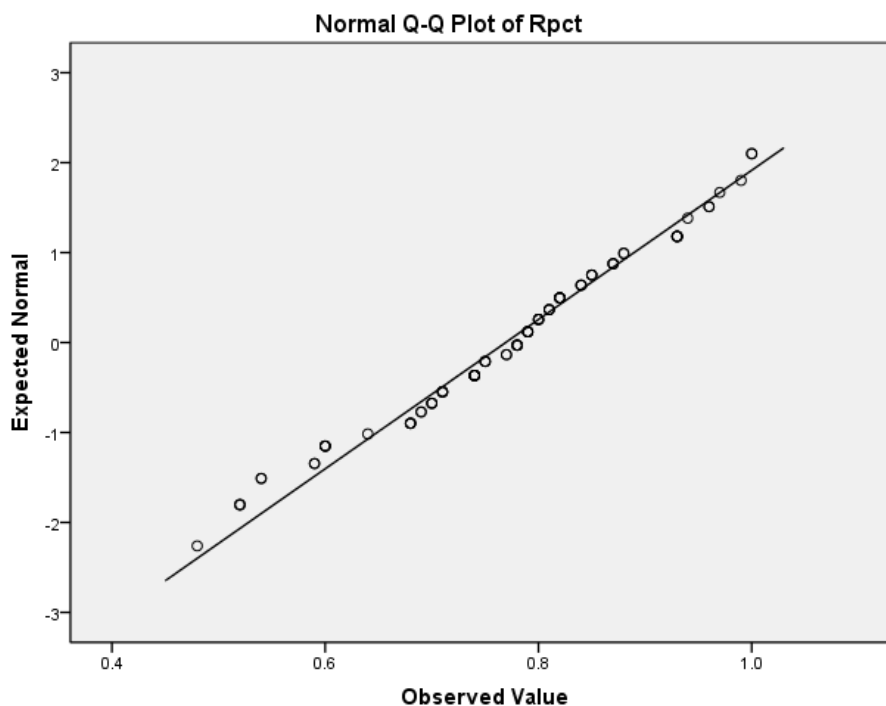


Figure 2. Normality Q-Q plot for Reading.

Math: Tests of Normality

Math achievement was assessed per classroom as the percent of students passing the CRCT Math exam. This Math variable did not violate the normality assumption of MANOVA by the Shapiro-Wilk test ($p = .45$). The skew of 0.03 indicated almost no skew, and skew / standard error of skew = 0.1, consistent with no significant skew (Weinberg & Abramowitz, 2008). The kurtosis of 0.02, and kurtosis / standard error of kurtosis = 0.03 indicated no significant kurtosis. The normality plot of percent of students passing the CRCT Math exam versus expected values shows no obvious non-normality (Figure 3).

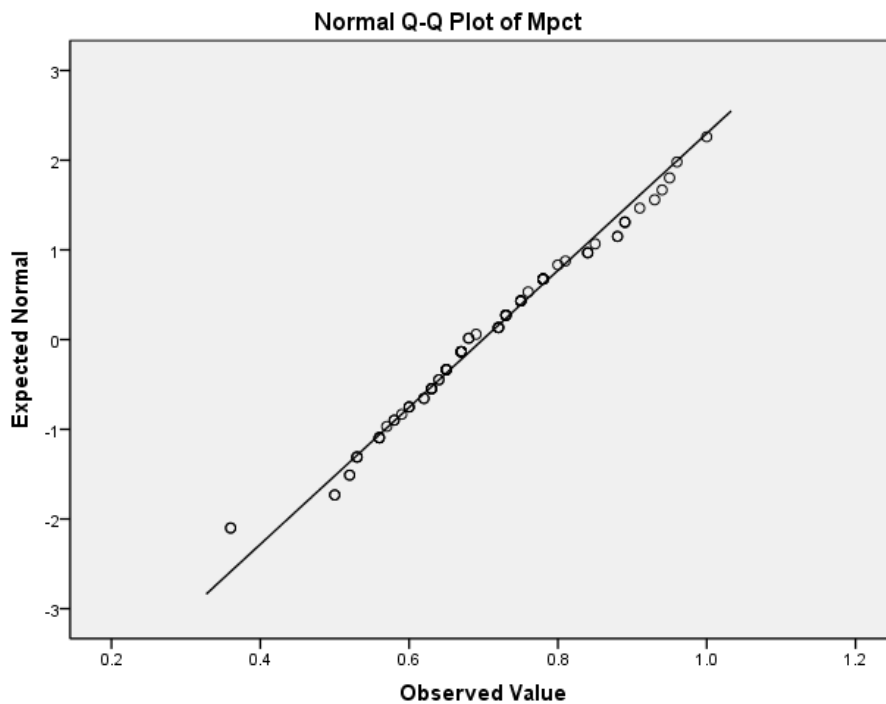


Figure 3. Normality Q-Q plot for Math.

ELA: Tests of Normality

ELA achievement was assessed per classroom as the percent of students passing the CRCT ELA exam. This ELA variable expression violated the normality assumption of MANOVA by the Shapiro-Wilk test ($p < .0003$). The skew of -1.0, and skew / standard error of skew = -3.7 were consistent with significant negative skew. The kurtosis of 1.2, and kurtosis / standard error of kurtosis = 2.3 indicated significant kurtosis. The normality plot of percent of students passing the CRCT ELA exam versus expected values shows obvious non-normality (Figure 4).

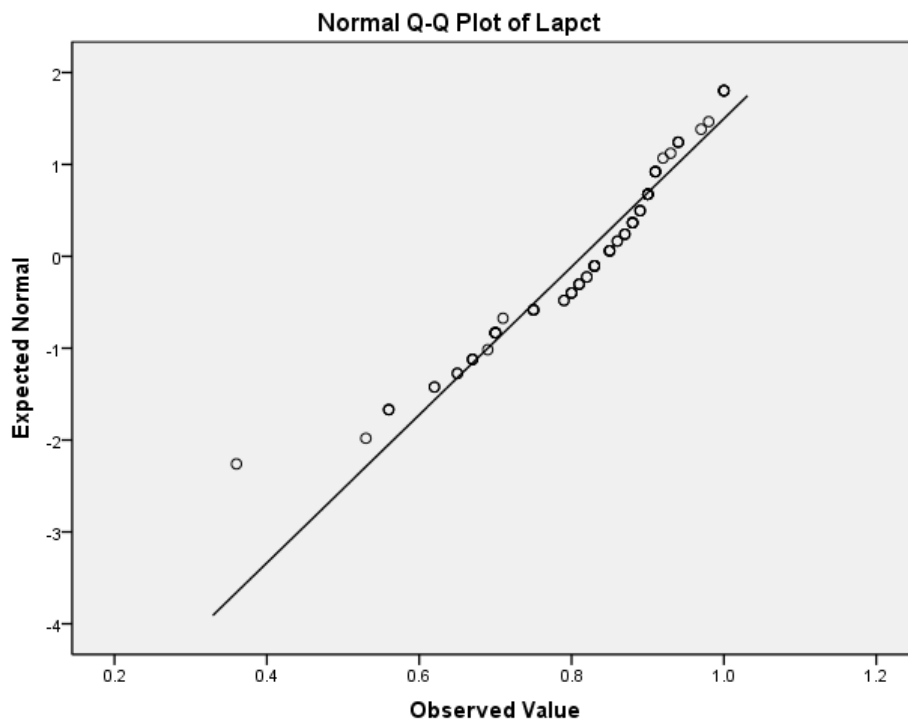


Figure 4. Normality Q-Q plot for ELA.

To correct for non-normality, and arcsin transformation was conducted, because arcsin transformations are often used to ameliorate non-normality in proportional data (Cohen, 2008; Tabachnick & Fidell, 2007). The arcsin expression of the ELA variable fostered the normality assumption of MANOVA. The Shapiro-Wilk test of $p < .0003$

before transformation was reduced to $p = .01$ following arcsin transformation. Skew was reduced from 1.0 before transformation to 0.3 following arcsin transformation and skew / standard error of skew was reduced from -3.7 to 1.3. Kurtosis was reduced from 1.2 before transformation to 0.7 following arcsin transformation and kurtosis / standard error of kurtosis was reduced from 2.3 to 1.4 (Figure 5).

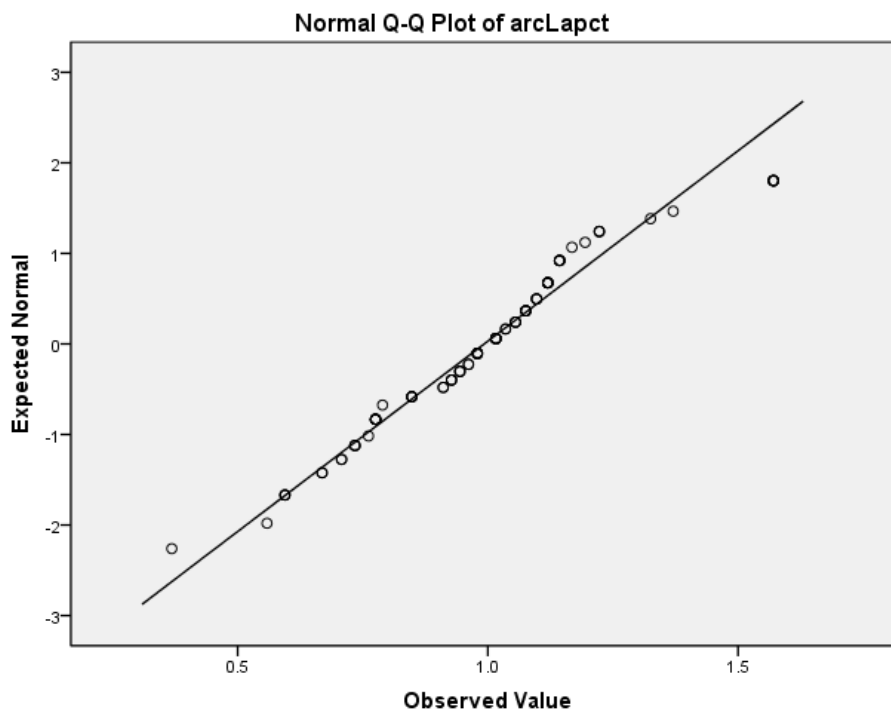


Figure 5. Normality Q-Q plot for arcsin expression of ELA.

While the Q-Q plot in Figure 5 shows some variation from normality, the non-normality was greatly reduced by arcsin transformation, fostering this assumption of MANOVA. Crucially, the Box's Test of Equality of Covariance Matrices was non-significant using this expression ($p = .45$), fostering the MANOVA assumption of homogeneity of covariance. Therefore, MANOVAs were conducted using the arcsin expression of ELA, including f-values and p-values, but for clarity, all data expression in

text reflect untransformed values to foster ease in interpretation for the reader.

Descriptives for ELA and arcsin expression of ELA are provided in Appendix H.

Hypothesis 1: Instruction Management

Null Hypothesis 1: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing standardized tests of reading, English language arts, and math.

To test Hypothesis 1, participant instruction management style was categorized as interventionist, noninterventionist, and interactionalist, using the criteria of the BIMS authors, Martin and Sass (2010). Of 83 participants, 23 (27%) were noninterventionist, 56 (67%) were interactionalist, and 4 (5%) were interventionist in IM (Table 14).

Table 14

Passing Rates by Instruction Management Style

| Style | Statistic | Reading | Math | Language Arts |
|----------------------------|-----------|---------|------|---------------|
| Nonnterventionist (n = 23) | Mean | .78 | .69 | .82 |
| | SD | .10 | .10 | .13 |
| Interactionalist (n = 55) | Mean | .76 | .69 | .81 |
| | SD | .13 | .14 | .13 |
| Interventionist (n = 5) | Mean | .85 | .80 | .83 |
| | SD | .09 | .14 | .12 |

MANOVA assumes adequate sample size and 5 participants is not adequate to be included in MANOVA analyses. Because only 5 participants were interventionist, the

MANOVA analyses were conducted to contrast noninterventionist and interactionalist IM teaching styles in the percent of classroom students passing statewide standardized Criterion-Referenced Competency Tests (CRCT) tests of reading, math, and language arts (Table 5).

For each MANOVA analysis, IM category was the independent variable, the CRCT tests (reading, math, and language arts) served as the dependent variables. Percent passing reading, math, and language arts descriptives by interventionist, noninterventionist, and interactionalist are displayed in Table 14.

MANOVA revealed no overall effect of group, Pillai's Trace = .011, $F(3,74) = 0.29$, $p = .84$, $\eta^2 = .01$, observed power = .10. This finding indicated no significant difference between noninterventionist and interactionalist IM teaching style classrooms in the linear combination of percentage of students passing CRCT reading, math, and ELA. Therefore, this finding failed to reject Null Hypothesis 1.

Hypothesis 1a: IM and Reading

Tests of statistical assumptions were conducted for Hypothesis 1a. In addition to testing for significant skew, kurtosis, and Shapiro-Wilk test normality for the CRCT Reading variable described on page 77, these same tests were conducted for each group included in the analysis for testing Hypothesis 1a. The Shapiro-Wilk test of normality was not statistically significant for the noninterventionist group ($p = .58$) or for the interactionalist group ($p = .26$). The skew of -0.4 and skew / standard error of skew = -0.9 indicated mild negative skew for the noninterventionist group, and the skew of -0.2 and skew / standard error of skew = -0.6 indicated mild negative skew for the interactionalist

group in CRCT Reading. The kurtosis of -0.1 and kurtosis / standard error of kurtosis of 0.1 indicated no significant kurtosis for the noninterventionist group, while the kurtosis of -0.2 and kurtosis / standard error of kurtosis of 0.6 indicated no significant kurtosis for the interactionalist group in CRCT Reading. In addition, the Levene's test of Equality of Variances was not statistically significant ($p = .18$), indicating no violation of the homogeneity of variance assumption. For these reasons, the CRCT Reading variable was considered to be sufficiently in normal and not in violation of the statistical assumptions for testing Hypothesis 1a.

Noninterventionist and interactionalist IM teaching styles did not differ significantly in the percent of classroom students passing the CRCT Reading test by MANOVA, $F(1, 76) = 0.29$, $p = .59$, $\eta^2 = .004$, observed power = .08. Noninterventionist averaged 78% ($SD = 10\%$) passing CRCT reading and interactionalist averaged 76% ($SD = 13\%$) passing CRCT reading. The results failed to reject Null Hypothesis 1a because interactionalist IM and interventionist IM were similar in percent passing CRCT reading, as visually displayed in Figure 6.

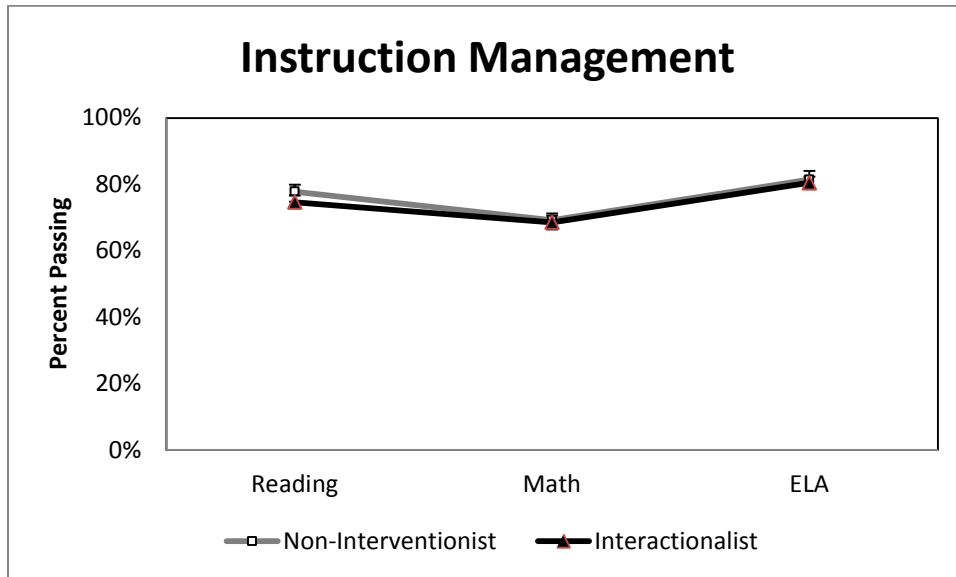


Figure 6. Percent passing Reading, Math, and Language Arts by IM Style.

Icon heights reflect mean values. Error bars indicate standard error of the mean (SEM).

Note that interventionist IM is not included because of small sample size ($n = 5$).

Hypothesis 1b: IM and Math

Tests of statistical assumptions were conducted for Hypothesis 1b. In addition to testing for significant skew, kurtosis, and Shapiro-Wilk test normality for the CRCT Math variable described on page 78, these same tests were conducted for each group included in the analysis for testing Hypothesis 1b. The Shapiro-Wilk test of normality was not statistically significant for the noninterventionist group ($p = .58$) or for the interactionalist group ($p = .23$). The skew of -0.3 and skew / standard error of skew = -0.6 indicated mild negative skew for the noninterventionist group, and the skew of -0.02 and skew / standard error of skew = -0.1 indicated mild negative skew for the interactionalist group in CRCT Math. The kurtosis of -0.4 and kurtosis / standard error of kurtosis of -0.4 indicated no significant kurtosis for the noninterventionist group, while the kurtosis of

-0.2 and kurtosis / standard error of kurtosis of -0.6 indicated no significant kurtosis for the interactionalist group in CRCT Math. In addition, the Levene's test of Equality of Variances was not statistically significant ($p = .26$), indicating no violation of the homogeneity of variance assumption. For these reasons, the CRCT Math variable was considered to be sufficiently in normal and not in violation of the statistical assumptions for testing Hypothesis 1b.

Noninterventionist and interactionalist IM teaching styles did not differ significantly in the percent of classroom students passing the CRCT math test by MANOVA, $F(1,76) = 0.07$, $p = .80$, $\eta^2 = .001$, observed power = .06. Noninterventionist averaged 69% (SD = 10%) passing CRCT math and interactionalist averaged 69% (SD = 14%) passing CRCT math. The results failed to reject Null Hypothesis 1b because interactionalist IM and interventionist IM were similar in percent passing CRCT math, as visually displayed in Figure 2.

Hypothesis 1c: IM and English Language Arts

Tests of statistical assumptions were conducted for Hypothesis 1c. In addition to testing for significant skew, kurtosis, and Shapiro-Wilk test normality for the CRCT ELA variable described on page 77-81, these same tests were conducted for each group included in the analysis for testing Hypothesis 1c, using the arcsin expression of ELA because of severe violation of assumptions detailed on pages 79-81. The Shapiro-Wilk test of normality was statistically significant for the noninterventionist group ($p = .01$) and for the interactionalist group ($p = .02$). The skew of -1.6 and skew / standard error of skew = -3.3 indicated negative skew for the noninterventionist group, and the skew of -

0.5 and skew / standard error of skew = 1.6 indicated mild positive skew for the interactionalist group in CRCT ELA. The kurtosis of 3.6 and kurtosis / standard error of kurtosis of 3.8 indicated significant kurtosis for the noninterventionist group, while the kurtosis of 0.2 and kurtosis / standard error of kurtosis of 0.4 indicated no significant kurtosis for the interactionalist group in CRCT ELA. In addition, the Levene's test of Equality of Variances was not statistically significant ($p = .25$), indicating no violation of the homogeneity of variance assumption. This expression of the CRCT ELA variable was not fully normal, with significant skew and kurtosis apparent for the noninterventionist group. The homogeneity of variance statistical assumption was met for testing Hypothesis 1c.

Noninterventionist and interactionalist IM teaching styles did not differ significantly in the percent of classroom students passing the CRCT Language Arts test by MANOVA, $F(1,76) = 0.06$, $p = .80$, $\eta^2 = .001$, observed power = .06. Noninterventionist averaged 82% (SD = 13%) passing CRCT language arts and interactionalist averaged 81% (SD = 13%) passing CRCT language arts. The results failed to reject Null Hypothesis 1c because interactionalist IM and interventionist IM were similar in percent passing CRCT language arts, as visually displayed in Figure 2.

Summary of IM

Instruction management noninterventionists and interactionalists were similar in percent passing CRCT tests. This pattern of no statistically significant difference between noninterventionists and interactionalists was evident across reading, math, and language arts. Interventionists were not included in MANOVA analysis because of a paucity of

interventionist teachers ($n = 5$). Regardless, these results indicated no significant difference in percent of students passing CRCT statewide standardized tests of reading, math, and language arts with noninteractionalist IM and interventionist IM.

Hypothesis 2: Behavior Management

Null Hypothesis 2: There are no significant differences between teacher instructional management (IM) styles (interventionist, noninterventionist, and interactionalist) and the percent of third, fourth, and fifth grade students passing standardized tests of reading, English language arts, and math.

To test Hypothesis 2, participant Behavior Management was categorized as interventionist, noninterventionist, and interactionalist using the criteria of The Behavioral and Instructional Management Scale (BIMS) authors, Martin and Sass (2010). Of 84 participants, 3 (4%), were Noninterventionist 32 (38%), were interactionalist and 49 (58%) were interventionist in BM. MANOVA assumes adequate sample size and 3 participants is not an adequate sample to be included in MANOVA analyses. Because only 3 participants were noninterventionist, the MANOVA analyses were conducted to contrast interventionist and interactionalist BM teaching styles in the percent of classroom students passing statewide standardized Criterion-Referenced Competency Tests (CRCT) tests of reading, math, and language arts.

For each MANOVA analysis, BM category was the independent variable and the CRCT tests (reading, math, and language arts) served as the dependent variables. Percent passing reading, math, and language arts descriptives by interventionist, noninterventionist, and interactionalist are in Table 15.

Table 15

Passing Rates by Behavior Management Style

| Style | Statistic | Reading | Math | Language Arts |
|----------------------------|-----------|---------|------|---------------|
| Noninterventionist (n = 3) | Mean | .88 | .88 | .87 |
| | SD | .11 | .13 | .15 |
| Interactionalist (n = 32) | Mean | .83 | .74 | .84 |
| | SD | .09 | .13 | .12 |
| Interventionist (n = 48) | Mean | .72 | .66 | .79 |
| | SD | .12 | .12 | .12 |

MANOVA revealed a significant overall effect of group, Pillai's Trace = .21, $F(3,76) = 6.59$, $p < .001$. This finding indicated a significant difference between interventionist and interactionalist BM teaching style classrooms in the linear combination of percentage of students passing CRCT reading, math, and ELA. This finding rejected Null Hypothesis 2.

Hypothesis 2a: BM and Reading

Tests of statistical assumptions were conducted for Hypothesis 2a. In addition to testing for significant skew, kurtosis, and Shapiro-Wilk test normality for the CRCT Reading variable described on page 77, these same tests were conducted for each group included in the analysis for testing Hypothesis 2a. The Shapiro-Wilk test of normality was not statistically significant for the interactionalist group ($p = .23$) or for the interventionist group ($p = .17$). The skew of 0.3 and skew / standard error of skew = 0.6

indicated mild positive skew for the interactionalist group, and the skew of -0.2 and skew / standard error of skew = -0.8 indicated mild negative skew for the interventionist group in CRCT Reading. The kurtosis of -0.9 and kurtosis / standard error of kurtosis of 1.1 indicated no significant kurtosis for the interactionalist group, while the kurtosis of -0.6 and kurtosis / standard error of kurtosis of -0.9 indicated no significant kurtosis for the interventionist group in CRCT Reading. In addition, the Levene's test of Equality of Variances was not statistically significant ($p = .26$), indicating no violation of the homogeneity of variance assumption. For these reasons, the CRCT Reading variable was considered to be sufficiently in normal and not in violation of the statistical assumptions for testing Hypothesis 2a.

Interventionist and interactionalist BM teaching styles differed significantly in the percent of classroom students passing the CRCT Reading test by MANOVA, $F(1,78) = 18.88$, $p < .00005$, $\eta^2 = .19$, observed power = .99. Interactionalist averaged 83% (SD = 9%) passing CRCT Reading and Interventionist averaged 72% (SD = 12%) passing CRCT Reading. Null Hypothesis 2a was rejected because statistically significant differences were found between BM and percent passing CRCT Reading. The difference of 11% favoring interactionalist BM over interventionist BM in percent passing CRCT Reading is visually displayed in Figure 7.

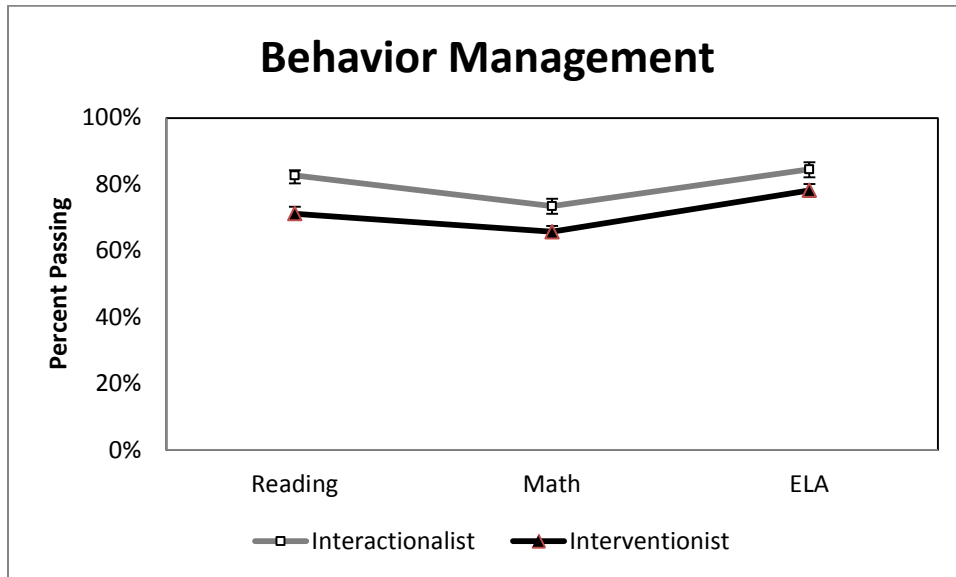


Figure 7. Percent passing Reading, Math, and Language Arts by BM Style.

Icon heights reflect mean values. Error bars indicate standard error of the mean (SEM).

Note that non-interactionalist BM is not included because of small sample size ($n = 3$).

Hypothesis 2b: BM and Math

Tests of statistical assumptions were conducted for Hypothesis 1b. In addition to testing for significant skew, kurtosis, and Shapiro-Wilk test normality for the CRCT Math variable described on page 78, these same tests were conducted for each group included in the analysis for testing Hypothesis 2b. The Shapiro-Wilk test of normality was not statistically significant for the interactionalist group ($p = .23$) or for the interventionist group ($p = .30$). The skew of 0.2 and skew / standard error of skew = 0.5 indicated mild positive skew for the interactionalist group, and the skew of -0.3 and skew / standard error of skew = -1.0 indicated mild negative skew for the interventionist group in CRCT Math. The kurtosis of -0.9 and kurtosis / standard error of kurtosis of -1.0 indicated no significant kurtosis for the interactionalist group, while the kurtosis of

0.3 and kurtosis / standard error of kurtosis of 0.5 indicated no significant kurtosis for the interventionist group in CRCT Math. In addition, the Levene's test of Equality of Variances was statistically significant ($p = .04$), indicating a significant difference between groups in variance in violation of the homogeneity of variance assumption. In spite of this violation of the homogeneity assumption, the CRCT Math variable was considered to be sufficiently in normal for testing Hypothesis 2b.

Interventionist and interactionalist BM teaching styles differed significantly in the percent of classroom students passing the CRCT Math test by MANOVA, $F(1,78) = 7.25, p < .01, \eta^2 = .09$, observed power = .76. Interactionalist averaged 74% (SD = 13%) passing CRCT math and interventionist averaged 66% (SD = 12%) passing CRCT math. Null Hypothesis 2b was rejected because statistically significant differences were found between BM and percent passing CRCT math. The difference of 8% favoring Interactionalist BM over Interventionist BM in percent passing CRCT math is visually displayed in Figure 7.

Hypothesis 2c: BM and Language Arts

Tests of statistical assumptions were conducted for Hypothesis 1c. In addition to testing for significant skew, kurtosis, and Shapiro-Wilk test normality for the CRCT ELA variable described on page 77-81, these same tests were conducted for each group included in the analysis for testing Hypothesis 1c, using the arcsin expression of ELA because of severe violation of assumptions detailed on pages 79-81. The Shapiro-Wilk test of normality was not statistically significant for the interactionalist group ($p = .14$) and for the interventionist group ($p = .10$). The skew of 0.3 and skew / standard error of

skew = 0.8 indicated mild positive skew for the interactionalist group, and the skew of -0.2 and skew / standard error of skew = 0.5 indicated mild positive skew for the interventionist group in CRCT ELA. The kurtosis of -0.1 and kurtosis / standard error of kurtosis of -0.2 indicated significant kurtosis for the interactionalist group, while the kurtosis of 1.6 and kurtosis / standard error of kurtosis of 2.4 indicated significant leptokurtic kurtosis for the interventionist group in CRCT ELA. In addition, the Levene's test of Equality of Variances was not statistically significant ($p = .11$), indicating no violation of the homogeneity of variance assumption. The CRCT ELA variable was not fully normal, with significant kurtosis apparent for the interventionist group. In spite of this violation of the assumption of non-significant kurtosis, this expression of the CRCT ELA variable was considered to be sufficiently in normal for testing Hypothesis 2c.

Interventionist and interactionalist BM teaching styles differed significantly in the percent of classroom students passing the CRCT Language Arts test by MANOVA, $F(1,78) = 4.16, p < .05, \eta^2 = .05$, observed power = .52. Interactionalist averaged 84% (SD = 12%) passing CRCT language arts and Interventionist averaged 79% (SD = 12%) passing CRCT language arts. Null Hypothesis 2c was rejected because statistically significant differences were found between BM and percent passing CRCT Language Arts. The difference of 5% favoring interactionalist BM over interventionist BM in percent passing CRCT language arts is displayed in Figure 7.

Summary of BM

Behavior Management interactionalists had a significantly greater percentage of students passing CRCT tests than BM Interventionists. This pattern was evident across

reading, math, and language arts. Noninterventionists were not included in MANOVA analysis because of a paucity of noninterventionist teachers ($n = 3$). Regardless, these results indicate a significantly higher percent of students passing CRCT statewide standardized tests of reading, math, and language arts with interactionalist BM than with interventionist BM.

Chapter Summary

The present study of 84 3rd, 4th, and 5th grade teachers was designed to explore whether teacher instruction management (IM) styles or behavior management (BM) styles might affect the percent of students passing statewide standardized tests of reading, math, and language arts. Results are summarized in Table 16.

Table 16

Results Summary

| Research Question | Independent Variable | Dependent Variable | Null Hypothesis Test |
|-------------------|----------------------|--------------------|-------------------------------------|
| RQ1 | IM Style | H1a: Reading | Fail to Reject |
| | | H1b: ELA | Fail to Reject |
| | | H1c: Math | Fail to Reject |
| RQ2 | BM Style | H1a: Reading | Interactionalists > Interventionist |
| | | H1b: ELA | Interactionalists > Interventionist |
| | | H1c: Math | Interactionalists > Interventionist |

For instruction management, noninterventionists and interactionalists were similar in reading, math, and language arts. These results failed to reject Null Hypothesis 1. For behavior management, interventionists had a significantly higher percent passing CRCT tests than interactionalists. These findings rejected Null Hypothesis 2a (reading), 2b (math), and 2c (language arts) (Table 7).

The gender, education level, years of teaching experience, and grade level taught control covariates were not statistically significant in any analysis. The following chapter includes a review of major findings in the context of theory and in the context of previous research, as well as implications, limitations of this study, and areas for future research.

CHAPTER FIVE: DISCUSSION

This study was designed to fill a gap in the literature in that no previous studies have explored whether student outcomes in reading, English language arts, and math differ by interventionist, noninterventionist, or interactionalist teacher classroom management styles in grades three through five. This study also took into account each teacher's gender, years in teaching, and highest degree obtained in one rural county in West Georgia. This chapter includes the findings and interpretations, recommendations, and thoughts for future studies in this area.

Summary of Results in the Context of Theory and Previous Research

This discussion chapter section is dedicated to a review of major findings in the context of theory and in the context of previous research. Each major finding is stated, followed by a discussion of how this finding fits in relation to the findings of others and in relation to the theoretical foundations of the present study.

Instructional Management Styles and Student Outcomes

This study found that interactionalist and interventionist instructional management classrooms style groups were similar in percent passing statewide tests of reading, math, and English language arts (ELA).

This finding of no significant difference between IM groups in student outcomes, however, was not consistent with the theoretical perspective of Glasser (1997) and of Lanoue (2009), who ascribed to the noninterventionist - interactionalist - interventionist classroom management continuum of Wolfgang and Glickman (1980; Martin & Sass,

2010), who believed that interactionalist style should result in superior student outcomes.

These null findings were consistent with the findings of Brannon (2010), who failed to find statistically significant differences between classroom management styles of 45 teachers of fourth and fifth grade students passing standardized math and ELA tests. It is important to note that Brannon (2010) did not differentiate between instructional management and behavior management, instead opting to conceptualize classroom management as one entity.

In the present study, the reliability of the IM scale was .62, which was lower than the threshold of .70 for survey research (Nunnally, 1978; Tabachnick & Fidell, 2007). Ladner (2009), using the ABCC-R, found that IM was unrelated to the number of behavioral interventions needed in a study of 216 general and special education teachers of grades K-3. These results might imply the instructional management measuring instruments are not sensitive enough to measure important differences related to student outcomes.

However, it is important to note that few teachers in the present study were categorized as interventionist in IM ($n = 5$). This finding may be particular to the sample, but it is also possible that teachers are moving away from interventionist IM. Brannon (2010) found only 4 of 39 (10%) 4th grade teachers were categorized as non-interventionist in instruction management, similar to the (5 of 83, 6%) rate in the present study. Regardless, these results indicated no significant difference in percent of students passing CRCT statewide standardized tests of reading, math, and language arts between classrooms with noninteractionalist IM and classrooms with interventionist IM.

The effect of experience and training on IM and student outcomes is unclear. In the present study, years of teaching experience and highest degree obtained were not statistically related to student outcomes. Parker (2002) studied elementary and secondary teachers that were traditional licensed or alternative licensed and found no significant differences in IM even though the traditional teachers had significantly more teaching experience. Gibbes (2004) also found no difference between traditional licensed and alternative licensed teachers in IM. Santiago (2011) studies 13 middle school teachers and found that highest degree obtained was not statistically related to instructional management.

In contrast, Crocker (2007) surveyed 489 teachers and found that teachers who belonged to a professional development book club were less interventionist than teachers who did not belong to the professional development book club. Skinner (1999) studies Presidential Award Winners in Mathematics and found that these award winners were generally interactionalist rather than interventionist or noninterventionist in IM. Lanoue (2009) showed that classroom management can be trained in teachers by using a personal development intervention based on Perceptual Control Theory. But Lanoue (2009) did not follow-up to determine whether these changes in IM were related to subsequent improvement in student performance on standardized tests.

Further confounding the assessment of IM, Moore (2008) compared IM scores with direct classroom observation of 3rd grade and 5th grade teachers in Georgia. Moore found that teacher behaviors were not reflective of their responses in 20 of 32 items of the ABCC-R. Moore's (2008) results suggest the possibility that teacher perceptions of their instructional management beliefs may not be fully reflective of their actual instructional

management style. In summary, the present the null result of no significant difference between classroom IM styles and percent of students passing CRCT statewide standardized tests of reading, math, and ELA can only be explained with further study that includes direct observation of teacher behaviors.

Behavioral Management Styles and Student Outcomes

Interactionalist behavior management style classrooms had a significantly greater rate of students passing CRCT tests of reading, math, and ELA than non-Interventionist behavior management classrooms.

These results were not consistent with the findings of Brannon (2010), who failed to find significant differences between classroom management groups in fourth and fifth grade student performance in percent passing statewide standardized tests of math and ELA. It is possible that differences between studies might account for the different results. Brannon did not separate behavior management from instruction management, which might account for the null result of Brannon (2010). Given that the ABCC-R (Glickman, 1980) was replaced by the BIMS (Martin & Sass, 2010) for improved reliability and validity, it is also possible that the ABCC-R used by Brannon (2010) is not sensitive enough to allocate classroom management differences as sensitively as the BIMS scales used in the present study. That is, it is possible that the participants in Brannon (2010) might have differed in student outcomes based on behavior management differences, but the use of the ABCC-R and the lack of separation of classroom management into instructional and behavioral components precluded findings significant results. This speculation regarding the importance of separating classroom management

into instructional and behavioral components can only be validated with additional studies of instructional and behavioral management on student outcomes.

The higher rate of students passing CRCT tests of reading, math, and ELA for interactionalist classrooms compared to non-Interventionist classrooms was consistent with the interactionalist philosophy of Glasser (1997) and of Lanoue (2009).

Interactionalists believe that students learn from interacting in a shared classroom management strategy, which requires incorporating the best aspects of interventionist and noninterventionist classroom management strategies (Ritter & Hancock, 2007). Brannon (2010), who define the interactionalist, like Glasser (1997), as believing Reality and Choice Theories, insight in changing of misbehavior by means of logical consequences and conditioning would assist management techniques used in the classroom setting. Present findings support the efficacy of Interactionalist behavior management style towards fostering student outcomes on statewide standardized tests.

Other Findings

In the present study, two-thirds of participants were interactionalist in Instructional Management (56/84=67%) and the majority of participants (49/84=58%) were Interventionist in Behavior Management. Few teachers were interventionist in Instructional Management style (5/84=6%) and few teachers were non-Interventionist in Behavior Management style (3/84=4%). The paucity of Behavioral Management Non-Interventionist was similar to the Santiago (2012), who found that middle and high school teachers were largely interventionist or interactionalist using the original 24-item BIMS. Further, Brannon found only 4 of 39 participating 4th grade teachers (10%) were non-

Interventionist. While the reason for the lack of non-interventionists BM found here and in Santiago (2012), and the lack of Interventionist IM seen here and in Brannon (2010) cannot be determined within the present study, it is possible that these findings might reflect the measures used or may reflect a shift in classroom management. This presents an open question for future investigation.

Implications

The present study may assist stakeholders in the educational process. As our society is moving towards enhancing student achievement and improving behavior across all grade levels, classroom management needs to be considered. All stakeholders, parents, students, teachers, principals, and directors are searching for behavior answers.

Interactionalist Behavior Management style classrooms showed higher rates of students passing reading, math and ELA compared to Interventionist classrooms. This advantage of interactionalist BM was substantial. In reading, the percent passing CRCT was 83% for interactionalist classrooms compared to 71% for interventionist classrooms. This 12% advantage for interactionalists over interventionists in reading was also evident math (8% advantage; $74\% - 66\% = 8\%$) and in ELA (5% advantage; $84\% - 79\% = 5\%$).

These finding imply (but of course do not prove) that interactionalist Behavior Management may be advantageous compared to Interventionist classrooms management towards the goal of students passing statewide standardized tests in reading, math and ELA. If this is true, then the next step may be to foster interactionalist BM via training and ongoing education.

Training interactionist Behavior Management is possible. Lanoue (2009) showed that classroom management can be trained in teachers. While Hicks (2012) suggests that classroom management skills may be learned ‘on the job’ (p. 87), Green (2006) cautioned that “years of experience in the classroom do not guarantee exemplary results with regards to classroom management” (P. 88). In the present study, years of teaching experience was not related to student outcomes. Santiago (2012) found that gender, number of years of teaching, and highest education degree can affect BIMS instructional management scores in high school teachers, but present findings do not support these demographics as significant correlates of student performance in passing standardized tests. Combined, this implies that it is the instructional style and not teacher demographics that may be driving results. Training interactionist BM may prove fruitful, but empirical studies will be necessary to determine whether training teachers in Interactionist BM actually results in superior student performance.

The reauthorization of IDEA 1997 compelled educators to direct their attention to the relationship between instruction and discipline by not only assessing learning but also gain a better understanding of the various behavioral issues present in the classroom (Ladner, 2009). Ineffective classroom management limits student outcomes (Braden & Smith, 2006; Rogers & Freiberg, 1994). Boynton and Boynton (2005) showed how ineffective classroom management skills can waste instructional time, reduce time-on-task, and interrupt learning environments. Clearly, promoting effective classroom management benefits society, school districts, teachers, and individual students. Present results imply that interactionist Behavior Management style may be preferable to

Interventionist classrooms, and that interactionalist BM should be trained in teachers, consistent with the philosophy of Glasser (1986, 1997) and of Lanoue (2009).

Limitations

The present study was limited by the sample. Only one school district was included, so the overall sample size was modest. However, it is important to note that of 100 potential participants, 83 chose to participate, representing an 83% participation rate. Because this study was conducted in a school district in rural Georgia during one period of time, it is not known whether preset results might generalize to classrooms in other areas of the country.

The present study was limited by the measures. The BIMS (*Behavior and Instructional Management Survey*), which was developed by Martin and Sass (2010) to reliably assess classroom management styles, However, the BIMB is a self-report measure, and this study did not include any behavioral or third-party measures to supplement the BIMS by objectively assess classroom management. Further, there is more to education than passing standardized tests. It was appropriate to assess the rates of students passing standardized tests in the present study because of the importance of passing standardized tests for the students and the school. Students learning may encompass crucial concepts and relationships that standardized tests may not be sensitive to. However, student learning was only assessed here using standardized tests, which limited the present study. Further, this study did not include other variables that could have influenced the measured CRCT scores, like initial student ability, previous student knowledge, study habits, parental support, and teacher quality.

The present study was limited by the design. The present study incorporated a cross-sectional design, so this study was not sensitive to changes over time or possible differences that may occur during a school year that are due to classroom management styles. Because this study was cross sectional, no attempt was made to measure any possible effects of teacher training or the stability or malleability of outcomes over time, like explorations of changes from fall to spring during school year based on teacher management style. Lastly, the present study did not seek to determine long-term learning and retention, which are (arguable) more important than passing concurrent standardized tests. Therefore, because of these limitations, results should be interpreted and generalized only with caution.

Areas of Future Research

The present study should be replicated with larger, more diverse samples, with multiple sources of information regarding classroom management styles, including objective measures and third party assessments to supplement the self-report BIMS data. Future scholars should consider assessing classroom performance across time, so that the effects of classroom management can be assessed in a pre-test post-test design of baseline measures, followed by instruction, followed by re-assessment to determine the in-year effect of classroom management styles. For example, successive years of standardized tests can be used in this exploration as the pre and post measures, with differences in classroom management occurring during the school year, between the measurement periods. Alternately, measures could be taken at the beginning and at the end of the school year to assess the classroom management that occurs during the school year.

The present study found no effect of Instructional Management on student outcomes. This result may be due to low measured internal reliability of the BIMS IM scale ($\alpha = .62$). While the range of IM scores was wide, from 1.67 to 5.17 on the 1-to-6 scale, few participants were identified as Interventionist IM ($n = 5$). It is unclear why so few district teachers were Interventionist in IM, but it is possible that district teachers are more likely to embrace non-Interventionist and interactionalist philosophies in instructional management. More research is needed to determine the efficacy of IM on student outcomes.

It is important to follow up on present findings regarding Behavior Management. Students performed better with an interactionalist style than with an interventionist classroom management style. Few teachers were Non-Interventionist ($n = 3$) in BM, which may or may not reflect a gravitation of teachers away from non-interventionist BM. More research is necessary to determine the trends in BM styles and the effect on student outcomes.

The present study did not account for teacher training. It is possible that interventionaist, non-interventionist, and interactionalist styles are amenable to training towards optimizing student outcomes. More research is needed to determine the effects of teacher training on classroom management styles and subsequent student outcomes.

Conclusion

This study was designed to explore the possible effects of classroom Instructional Management and Behavior Management styles on 3rd, 4th, and 5th grade student outcomes on statewide standardized tests. Scores did not significantly differ by Instructional

Management style. However, compared to interventionists, interactionalist behavior management style classrooms had a significantly higher percentage of students passing reading, math, and language arts. These findings highlight the important role of classroom management in meeting the mandates of No Child Left Behind by fostering high rates of students passing statewide standardized tests. More importantly, this study highlights the potential of identifying classroom management styles towards fostering quality education for all.

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APPENDIX A

Dear Sir:

My name is Hope K. Sowell, and I am a doctoral student at Liberty University. I am conducting research for my dissertation on the techniques and practices involved regarding classroom management of general and special education teachers in third through fifth grade. My focus will be on two dimensions of classroom management: behavioral management and instructional management. I am targeting a rural public school district area for my sample. The school and teachers will remain anonymous.

If granted permission to conduct this study, I will arrange delivery and collection of the survey instruments via e-mail. In addition to the survey delivery, I will need each of your third through fifth grade teacher CRCT scores. To ensure a quality study, I will need you to assign each teacher a code, along with you coding the scores with the same code. By using this coding system, I will be able to align the survey results to each teachers scores to determine if a difference is present between student achievement and classroom management. I will be distributing a cover letter with a link to the online survey to each general and special education teachers in grades three through five. The cover letter to each teacher will clarify the purpose of the survey, which will take approximately 15 minutes to complete. Tentatively, the month of February 2013 are targeted for this purpose.

I am writing to request your permission to conduct my study at your school. Please indicate your permission through letter of acceptance. I look forward to hearing from you soon.

Sincerely,
Hope K. Sowell
Liberty University

APPENDIX B

TEACHER EMAIL LETTER

January 22, 2013

Dear Teacher:

My name is Hope K. Sowell, and I am a graduate student at Liberty University. I am conducting research for my dissertation on the two dimensions of classroom management: behavioral management and instructional management. My study focus is on certified teachers in grades three through five. I am targeting rural public school districts for my sample. Full details of the study including the dissertation will be available upon request. The district and teachers will remain anonymous.

I am requesting that you complete an online survey by clicking the following link (<http://www.surveymonkey.com>). The survey will be available online for two weeks and should take approximately 15 minutes to complete. Please do not share or discuss the questions with other teachers until after the deadline.

Participation in this study is voluntary. You may refuse to participate at any time without penalty. Refusing to participate will in no way affect you or your standing as an educator. If you have questions about this study, you may contact the researcher, Hope K. Sowell, hksowell@liberty.edu or Dr. Constance Pearson, cpearson@liberty.edu. The results of this study will be available to you upon request.

Sincerely,

Hope K. Sowell
Liberty University

APPENDIX C

BIMS Usage Permission Letter

Hope,

At what institution are you enrolled? Liberty University in Virginia? In what area are you pursuing your doctorate?

I no longer provide permission to use the ABCC or its revised version. However, I do provide permission to use the Behavior & Instructional Management Scale (BIMS). I believe it will better suit your needs as it is a more psychometrically sound instrument. I have attached the article published in 2010 that describes the BIMS' development and psychometric properties. The instrument is included in an appendix at the end of the article.

If I can be further assistance, please let me know. Good luck with your study.

On 5/1/12 1:11 PM, "Sowell, Hope Kathryn" <hksowell@liberty.edu> wrote:

I am pursuing my doctorate. I am conducting a study about the two classroom management styles (proactive/reactive) and how those styles impact a teacher's student achievement. After searching for good questionnaires to use to collect my data, your ABCC inventory would be perfect. I am emailing you to ask if I could use your inventory. If you need a formal letter for my request, please let me know. If not, could I get an electronic copy of the inventory? I look forward to hearing from you. Below, you will find a more in depth description of my study. Thanks and hope to hear from you soon.

I will be employing two research designs: causal comparative study. I will be determining if a teacher's classroom management style affects student achievement and if a teachers years experience, gender, grade level, or highest degree obtained determines which classroom management strategy one uses in their classroom. I will be conducting the study at three Northwest

Nancy K. Martin, Ed.D.
Professor of Educational Psychology
Associate Vice Provost — Core Curriculum & QEP
The University of Texas at San Antonio
One UTSA Circle

APPENDIX D

BEHAVIOR & INSTRUCTIONAL MANAGEMENT SCALE (BIMS)

Directions: For each statement below, please mark the response that best describes what you do in the classroom. There are no right or wrong answers, so please respond as honestly as possible.

| | Statement | Strongly Agree | Agree Slightly | Agree | Slightly Disagree | Disagree Strongly | Disagree |
|---|---|----------------|----------------|-------|-------------------|-------------------|----------|
| 1 | I nearly always intervene when students talk at inappropriate times during class. | 6 | 5 | 4 | 3 | 2 | 1 |
| 2 | I use whole class instruction to ensure a structured classroom. | 6 | 5 | 4 | 3 | 2 | 1 |
| 3 | I strongly limit student chatter in the classroom. | 6 | 5 | 4 | 3 | 2 | 1 |
| 4 | I nearly always use collaborative learning to explore questions in the classroom. | 6 | 5 | 4 | 3 | 2 | 1 |
| 5 | I reward students for good behavior in the classroom. | 6 | 5 | 4 | 3 | 2 | 1 |
| 6 | I engage students in active discussion about issues related to real world applications. | 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | If a student talks to a neighbor, I will move the student away from other students. | 6 | 5 | 4 | 3 | 2 | 1 |
| 8 | I establish a teaching daily routine in my classroom and stick to it. | 6 | 5 | 4 | 3 | 2 | 1 |
| 9 | I use input from | 6 | 5 | 4 | 3 | 2 | 1 |

| | | | | | | | |
|----|---|---|---|---|---|---|---|
| | students to create classroom rules. | | | | | | |
| 10 | I nearly always use group work in my classroom. | 6 | 5 | 4 | 3 | 2 | 1 |
| 11 | I allow students to get out of their seat without permission. | 6 | 5 | 4 | 3 | 2 | 1 |
| 12 | I use student input when creating student projects. | 6 | 5 | 4 | 3 | 2 | 1 |
| 13 | I am strict when it comes to student compliance in my classroom. | 6 | 5 | 4 | 3 | 2 | 1 |
| 14 | I nearly always use inquiry-based learning in the classroom. | 6 | 5 | 4 | 3 | 2 | 1 |
| 15 | I firmly redirect students back to the topic when they get off task. | 6 | 5 | 4 | 3 | 2 | 1 |
| 16 | I direct the students' transition from one learning activity to another. | 6 | 5 | 4 | 3 | 2 | 1 |
| 17 | I insist that students in my classroom follow the rules at all times. | 6 | 5 | 4 | 3 | 2 | 1 |
| 18 | I nearly always adjust instruction in response to individual student needs. | 6 | 5 | 4 | 3 | 2 | 1 |
| 19 | I closely monitor off task behavior during class. | 6 | 5 | 4 | 3 | 2 | 1 |
| 20 | I nearly always use direct instruction when I teach. | 6 | 5 | 4 | 3 | 2 | 1 |
| 21 | I strictly enforce classroom rules to | 6 | 5 | 4 | 3 | 2 | 1 |

| | | | | | | | |
|----|---|---|---|---|---|---|---|
| | control student. behavior. | | | | | | |
| 22 | I do not deviate from my pre-planned learning activities. | 6 | 5 | 4 | 3 | 2 | 1 |
| 23 | If a student's behavior is defiant, I will demand that they comply with my classroom rules. | 6 | 5 | 4 | 3 | 2 | 1 |
| 24 | I nearly always use a teaching approach that encourages interaction among students. | 6 | 5 | 4 | 3 | 2 | 1 |

APPENDIX E

DEMOGRAPHIC INFORMATION FORM

1. Gender:

Male

Female

2. Number of years teaching:

less than five years

5 to 15 years

more than 15 years

3. Highest education degree obtained:

BA/BS

Masters

Specialists

Doctoral

APPENDIX F

March 18, 2013

Hope Kathryn Sowell

IRB Exemption 1538.031813: Classroom Management Strategies: The Impact on Schools and Student Achievement

Dear Hope,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and that no further IRB oversight is required.

Your study falls under exemption category 46.101 (b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Please note that this exemption only applies to your current research application, and that any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption, or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,

Fernando Garzon, Psy.D. *Professor, IRB Chair Counseling (434) 592-4054 Liberty University / Training Champions for Christ since 1971*

APPENDIX G

Descriptives for ELA and for arcsin transformation of ELA by Instructional and Behavioral Classroom Management Styles

Instructional Management

| Style | Statistic | ELA | Arcsin ELA |
|--------------------------------|-----------------------|-------|------------|
| Noninterventionist (n = 23) | Mean | .82 | .98 |
| | SD | .13 | .19 |
| | Shapiro-Wilk <i>p</i> | .0008 | .01 |
| | Skew/Skew SEM | -4.9 | -3.3 |
| | Kurtosis/Kurtosis SEM | 7.5 | 3.8 |
| Interactionalist (n = 55) | Mean | .81 | .99 |
| | SD | .13 | .25 |
| | Shapiro-Wilk <i>p</i> | .01 | .02 |
| | Skew/Skew SEM | -1.6 | 1.6 |
| | Kurtosis/Kurtosis SEM | -0.9 | 0.4 |

Behavioral Management

| Style | Statistic | ELA | Arcsin ELA |
|------------------------------|-----------------------|------|------------|
| Interactionalist (n = 32) | Mean | .84 | 1.05 |
| | SD | .12 | .26 |
| | Shapiro-Wilk <i>p</i> | .02 | .14 |
| | Skew/Skew SEM | -1.7 | 0.8 |
| | Kurtosis/Kurtosis SEM | -0.6 | -0.2 |
| Interventionist (n = 48) | Mean | .79 | .94 |
| | SD | .12 | .26 |
| | Shapiro-Wilk <i>p</i> | .001 | .10 |
| | Skew/Skew SEM | -3.9 | 0.5 |
| | Kurtosis/Kurtosis SEM | 3.4 | 2.4 |

Note. Arcsin transformation was conducted to foster the assumptions of MANOVA, but the arcsin expression is not an interpretable scale or metric, so all values in the text (means, standard deviations) are expressed as untransformed ELA, while the F-values, p-values, η^2 values, and observed power values were each derived from the arcsin expression of ELA.