TEACHERS' BELIEFS ABOUT FOSTERING TEACHER-STUDENT RELATIONSHIPS AND THE CORRELATION TO ACADEMIC GAINS

by

Naima Angela Williams

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

Toward the improvement of interactions between teachers and at-risk students, and academic achievement, this correlation study explored teachers' attitudes about cultivating teacher-student relationships and the connection to academic gains. Specifically, the current study investigated the relationship among three constructs: teacher support for student autonomy, teacher sense of responsibility for positive teacher-student relationships, and student academic gains among middle school students in a high minority, low socioeconomic middle school district in Georgia. Based on self-determination theory, teacher valuation of fostering teacher-student interactions was operationalized by the Problems in Schools Questionnaire (PIS) and Teacher Responsibility Scale (TRS). Teacher level growth percentile median data from the 2013-2014 Criterion Referenced Competency Test (CRCT) administration were used to assess student achievement. Information from the PIS and TRS, administered online to 43 middle school teachers, was paired with teacher growth percentile medians. Pearson and Spearman Rho correlations were run in SPSS v24 to determine relationships between teacher sense of responsibility for teacher-student relationships, their support for student autonomy and performance of their students on the 2013-2014 CRCT. Though no significant association between teachers' beliefs about teacher-student interactions and student achievement was found, this study found that teachers of at-risk students support student autonomy and indicate a sense of responsibility for fostering positive teacher-student relationships.

Keywords: Autonomy, Teacher Beliefs, Teacher Sense of Responsibility, Student Achievement

Dedication

To my husband, Adrian Williams the love of my life and best friend−

Thank you for continuing to believe in me, especially when I didn't believe in myself. Thank you for the many times you 'held down' the family and allowed me to do this work.

To my children, Nyambi and Ajani Williams−

Thank you for understanding and still loving me during those times of missed practices and games. Throughout it all my goal was to make you proud, I pray that I have succeeded.

To my mother, Carol Gittens−

I love you dearly. In your role as both mother and father you dedicated your entire life to me, making sure that I had opportunities that you have never known. Thank you! I know that I can never pay you back, but my hope is to honor and make you proud.

To my sister from another mother, Dr. Danielle Phillips−

I remember the hours we spent talking on corded phones with one line, about school, about boys, and about our plans for the future. Many of those dreams are now reality and some are still on the way. Thank you for always being there to listen, to cry, to laugh, and to push me forward.

To my brother-in-law, Richard Williams−

Thank you for your encouragement and the constant reminders about the importance of finishing this work.

To 'Dada' Rupert Gittens and 'Tas' Bertley Gittens−

You are gone from this earth, but not forgotten. Due to the waters and miles which separated us, our time together was too short. When I think of you, I think of love. Thank you for instilling in me the values of persistence and hard work.

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Often nothing of merit is done in solitude; when it comes to this project that statement takes on even greater meaning. First, I would like to give all honor and glory for the completion of this project to my Lord and Savior, Jesus Christ. Lord, thank you for the desire, ability, patience, and people you gave me to finish this work. I now pray that you direct my path on what to do next.

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To Shakera Reid-Stewart and Angela Hopewell−

Ladies, I share this victory with you. Thank you for encouraging me to walk unashamedly in God’s provision and blessings.

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List of Abbreviations

Annual Yearly Progress (AYP)

Criterion-Referenced Competency Test (CRCT)

College and Career Ready Performance Index (CCRPI)

Every Student Succeeds Act (ESSA)

Georgia Student Growth Model (GSGM)

No Child Left Behind (NCLB)

Problems in School Scale (PIS)

Socioeconomic Status (SES)

Teacher Responsibility Scale (TRS)

CHAPTER ONE: INTRODUCTION

Overview

Across the nation and within the state of Georgia, school districts are ushering in standards-based performance pay systems aimed at increasing student performance on standardized tests and ultimately graduation rates (Balch & Springer, 2015; Banchero, 2011; Bates, 2016; Few, 2013; Field, 2013; Georgia Department of Education, 2011a). However, such initiatives meant to motivate teachers toward improved student outcomes may have some unintended consequences (Muralidharan, 2012). Studies in self-determination theory indicate that when teachers believe there is amplified responsibility to increase academic performance, they resort to more controlling interactions with their students, often resulting in poorer student outcomes (Assor, Kaplan, Kanat-Maymon, & Roth, 2005; Pelletier & Sharp, 2009). Studies show that caring, structured interactions which emphasize autonomy are better suited to engage and motivate students toward academic achievement (Chong, Huan, Choom, Yeo, & Ang, 2010; Davis, 2003; Luckner & Pianta, 2011).

While the connection between what teachers believe about education and student achievement is well established, there is less information about teacher beliefs regarding their interactions with students and academic outcomes (Fives & Buehl, 2008; Rubie-Davies, Flint, & McDonald, 2011). In light of best practices which indicate the significance of teacher-student interactions and teachers' central roles in performance pay initiatives, this study examined teacher beliefs about their interactions with students as they relate to student outcomes, particularly among at-risk populations (McGrath & Van Bergen, 2015; Wilcox-Herzog & Ward, 2004).

Background

Teacher perceptions, student-teacher relations, and student achievement have been shown to be linked in self-determination, attachment, and ecological system theory literature (Davis, 2003; McGrath & Van Bergen, 2015). Attachment theory views teacher-student relationships as an offshoot of the original parent-child attachment, which provides a basis for how a child views the world (Luckner & Pianta, 2011). Warm consistent teacher-student interactions which enable exploration of the world beyond the relationship, but allow students to return for security and guidance are characterized as secure attachments (Verschueren & Koomen, 2012). Insecure attachments are often plagued by inconsistent warm and/or cold interactions which lead to high levels of conflict between teachers and students (Decker, Dona, & Christenson, 2007). Contradictory to insecure teacher-student relationships, secure teacher-student relationships are more enjoyable to teachers and students and often yield increased student academic achievement (Murray & Zvoch, 2011). Ecological systems theory contends that individual development is based on interaction between and within five systems: microsystem (individual's dyadic interaction with home, school, and/or work), chronosystem (the experience of life events in relation to individual chronological development), mesosystem (interactions between home, school, and/ or work), extosystem (system-wide events within home, school, and /or work which are not controlled by the individual), and macrosystem (the overall environment in which the individual exists, e.g., cultural, economic (Bronfenbrenner, 1977). Teacher-student relationships are viewed within the individual context of the microsystem, in light of contextual influences from the other systems, and in relation to how all systems influence each other (Tolan & Larsen, 2014). Ecological systems theory posits teacher-student patterns of behavior, affected by systems, influence teacher-student relationship quality and overall academic achievement (Davis,

2003). According to self-determination theory, all individuals have basic psychological needs for autonomy (a sense of doing something or behaving in a certain manner as a result of their own volition), relatedness (a feeling of being connected to others), and competence (viewing oneself as being adept; Deci, Vallerand, Pelletier, & Ryan, 1991). Individuals seek the meeting of these needs in interactions and relationships. Teachers who are able to foster relationships which meet student needs of autonomy, competence, and relatedness are more able to motivate students and facilitate their engagement in the classroom (McCoy, Wolf, & Godfrey, 2014). The premises of self-determination, attachment, and system theories provide a solid basis for understanding teacher-student relationships with overlapping themes of dyadic interactions and need fulfillment (Davis, 2003; McGrath & Van Bergen, 2015). However, self-determination theory more directly addresses the influence of educational policy on teacher-student relationships and provides measurable constructs which indicate teacher beliefs about teacher-student relationships (Assor et al., 2005; Pelletier & Sharp, 2009). As a result, this project was influenced by attachment and ecological system theory tenets, but largely guided and operationalized by self-determination theory.

This paper outlines a study regarding teacher beliefs about teacher-student interactions and its connection to academic gains on the middle school Georgia Criterion-Referenced Competency Test (CRCT). Undoubtedly, teachers of students who are at risk for academic failure due to low socioeconomic status, participation in special education, participation in an English as a second language program, or belonging to African American or Hispanic populations, should be concerned with student learning and performance on standardized tests (Delano-Oriaran, 2013). But with increasing accountability initiatives, there are concerns about teachers' sense of responsibility for positive non-controlling teacher-student interactions and its

ultimate effect on student outcomes (Assor et al., 2005). In Farrelly's (2013) study on student sense of belonging, school climate, and self-esteem, there was a traditional predictive relationship found between positive teacher-student relationships and student achievement. However, Farrelly also noted:

> In light of the increased pressures and accountability, high stakes student assessments, Race to the Top regulations such as APPR which tie student academic performance to teacher and principal evaluations, it is imperative we carefully consider the impact of teacher-student relationships, student sense of belonging and self-esteem as part of the educational experience. (p. 66)

Positive teacher-student relationships are instrumental to academic achievement (Decker et al., 2007; Hughes & Kwok, 2007; Murray & Zvoch, 2011). As posited by self-determination theory, students are engaged then motivated to perform well academically when teacher-student interactions fulfill student need for autonomy, relatedness, and competence (Niemiec & Ryan, 2009; Vlachopoulos, Katartzi, & Kontou, 2011). However, students at-risk for academic failure who are most benefited by positive teacher-student relationships, are least likely to experience these interactions (Hamre & Pianta, 2001; Hill et al., 2004; Roorda, Koomen, Spilt, & Oort, 2011). The research suggests that educators, especially those of at-risk students, need to be mindful of the types of relationships they cultivate (Englund, Egeland, & Collins, 2008; McGrath & Van Bergen, 2015). Conversely, few studies have evaluated teachers' beliefs about fostering relationships with students (Spilt, Koomen, & Thijs, 2011; Wilcox-Herzog & Ward, 2004). However, there has been a push for investigation into the teacher role in teacher-student relationships with at-risk students (McGrath & Van Bergen, 2015; Roorda et al., 2011). Teacher beliefs can dictate how students and teachers interact in schools (Van Maele & Van Houtte,

2009). This study sought to fill gaps in the literature regarding teachers' beliefs about fostering teacher-student interactions and possible connections to student achievement (Myers & Pianta, 2008).

Problem Statement

Minority students, students from low socioeconomic status (SES) backgrounds, English language learners, and students with disabilities are at greater risk for academic failure than students without disabilities, English as a first language speaking students, non-minority students, and students with higher SES backgrounds (McGrath & Van Bergen, 2015; Murray & Zvoch, 2011; Wu, Hughes, & Kwok, 2010). While there are many elements attributed to student success, the positive teacher-student relationship is one of the greatest school mediated variables associated with academic achievement among at-risk students (Alexander, 2014; Roorda et al., 2011). Unfortunately, at-risk students are more likely to have negative teacher-student relationships with this dynamic intensifying as students grow older (Hamre & Pianta, 2001; Hill et al., 2004; Soto, 2011). Limited research shows that most teachers do hold beliefs which support positive teacher-student interactions, but often participate in interactions which are solely instructional or behavior correcting in nature, curtailing active relationship-building interactions which involve students' interests or opinions (Hamre et al., 2012; Sakellariou & Rentzou, 2012). With the added impetus of accountability initiatives which link standardized test performance and teacher evaluation, there is mounting concern about their impact on teacher-student relationships (Farrelly, 2013). In their study of teacher accountability systems in Texas, Heilig, Young, and Williams (2012) found that when educators focused on meeting accountability benchmarks, the interpersonal environment was such that "low-scoring at-risk students were often viewed as liabilities by school personnel who, in their scramble to meet testing thresholds

and accountability goals were at-risk student averse...” (p. 562). There are few studies which explore teacher consideration of the teacher-student relationship as it relates to academic achievement in light of increasing teacher accountability initiatives (Onosko, 2011). As teacher accountability demands increase, beliefs about interactions with students may be negatively affected thus producing even more strained relationships between at-risk students and teachers; this then becomes an additional factor contributing to the poor overall academic progress of at-risk students (Assor et al., 2005; Heilig et al., 2012; Englund et al., 2008).

Purpose Statement

The purpose of this correlational study was twofold. First, the study attempts to test the assertion of self-determination which relates teacher beliefs about their perceived responsibility for students to student academic gain. (Deci et al., 1991) Secondly, this work intends to fill a gap in the literature regarding teacher beliefs about teacher-student interactions and the possible relation to student achievement (Onosko, 2011; Sakellariou & Rentzou, 2012). The literature surrounding teacher-student interactions often centers on preschool and elementary age students who do not belong to populations which are at increased risk for academic failure (Murray & Zvoch, 2011; Pianta et al., 2005). Teacher beliefs and student academic gain among middle school teachers of at-risk students were assessed in order to address this underserved population in teacher-student interaction research. Teacher beliefs were defined as teacher support for student autonomy in teacher-student relationships and a sense of responsibility for cultivating teacher-student relationships (Niemiec & Ryan, 2009; Vlachopoulos et al., 2011). Academic gain, was defined as teacher overall growth percentiles for the 2013-2014 CRCT. Teacher growth percentiles are comprised of student growth percentiles, which compare individual student CRCT scores within content area, from one year to another (Georgia Department of

Education, 2012a). Academic gains were assessed by utilizing existing data from the 2013-2014 CRCT administrations. In determining a relationship between teacher support for student autonomy and teacher sense of responsibility, support for autonomy was identified as the independent variable and sense of responsibility was the dependent variable. When considering correlations between support for autonomy and academic gain, and sense of responsibility and academic gain, the dependent variable in both correlations was academic gain, respectively.

Significance of the Study

This study has implications for classroom procedures, teacher education, and teacher professional development programs. Though the literature is clear about the importance of positive autonomy supporting teacher-student relationships, and teachers express similar beliefs, at-risk students continue to experience less supportive relationships with teachers (McGrath & Van Bergen, 2015; Sakellariou & Rentzou, 2012). This study sought to discover connections between teachers' beliefs about their interactions with students, the relationship between these same beliefs, and the academic achievement of their students. Findings gathered by this work offer insight into the gap between teacher valuation of positive interactions and the non-autonomy supportive interactions which are more likely to occur with students at-risk for academic failure. In addition, this study informs teacher education and professional development programs on developing a more conscious sense of responsibility in cultivating autonomy supportive relationships with at-risk students (Hamre et al., 2012). As explained by McCollum and Yoder (2011), it is of utmost significance that educators be not only cultivated as "the disseminators of knowledge and facilitators of learning" (p. 73), they must also be directed as to the importance of their interactions with students.

This study is of added significance as the United States embarks on systems which link student standardized test performance to teacher evaluation and pay (Farrelly, 2013). Pay for performance initiatives which tie teacher pay to student standardized test performance may pose an added barrier to the already labored relations between teachers and at-risk students (Heilig et al., 2012). The findings of this study serve to remind educators and policymakers about the importance of intangibles, such as teacher-student interactions, as they seek to fulfill the tangible objectives of increased student achievement, particularly among secondary and at-risk students (Roorda et al., 2011).

Research Questions

RQ1: Is there a correlation between middle school teacher support for autonomy, as measured by the Problems in Schools Questionnaire (PIS), and teacher sense of responsibility for positive teacher-student relationships, as measured by the Teacher Responsibility Scale (TRS)?

RQ2: Is there a correlation between teacher support for autonomy, as measured by the Problems in Schools Questionnaire (PIS), and teacher growth percentile medians reflecting student achievement gains, measured by the Georgia middle school Criterion-Referenced Competency Test (CRCT)?

RQ3: Is there a correlation between teacher sense of responsibility for positive teacher-student relationships, as measured by the Teacher Responsibility Scale (TRS) and teacher growth percentile medians reflecting student achievement gains, measured on the Georgia middle school Criterion-Referenced Competency Test?

Definitions

1. *Accountability* - The practice of making school systems, schools, and teachers responsible for student academic development and associating student academic progress

with local system, school, and teacher evaluation and/or funding (Borden-Hudson, 2010).

2. *At-Risk Students* - Students who have a greater chance of failing or dropping out of school; often these students belong to one or more of the following categories: racial minority, participant in the free/reduced lunch program, English language learner, recipient of special education (Delano-Oriaran, 2013).
3. *Autonomy* - One of three psychological needs according to self-determination theory which depicts the need for individuals to feel like their actions or behaviors are committed by choice (Niemiec & Ryan, 2009).
4. *Autonomy Supportive* - Interactions which promote another's psychological need to feel like their actions or behaviors are committed by choice (Roth & Weinstock, 2013).
5. *Teacher Beliefs* - Educator reasoning of the qualities of knowledge and knowing about a given subject matter (Roth & Weinstock, 2013).
6. *Teacher-Student Relationship* - The pattern of verbal and nonverbal communication and behavior between pupils and educators (Pennings, van Tartwijk, Wubbels, & Claessens, 2014; Pianta et al., 2005).

CHAPTER TWO: LITERATURE REVIEW

Overview

In the era of *No Child Left Behin*d legislation, *Race to the Top* and pay for performance initiatives which emphasize standardized testing, data-based interventions, and value-added teacher accountability systems as impetus to increased student achievement, it is easy to overlook the importance of interpersonal relationships in education (United States Department of Education, 2001, 2009, 2015). Through relationships, people learn about the world and find support and companionship (Sameroff, 2010). Interpersonal relationships in schools are integral for motivation, engagement, and ultimately academic achievement. The following chapter will provide both theoretical and empirical rationale for this correlation study which utilized self-determination theory as its primary foundation.

Theoretical Framework

While much of the research has focused on parental support and involvement in school as promoters of student achievement, there is emerging emphasis on the influence of teacher-student interactions (Baker, 2006; Hughes & Kwok, 2007; McGrath & Van Bergen, 2015; Saft & Pianta, 2001; Verschueren & Koomen, 2012). Theoretically, teacher-student relationships are understood through attachment, motivation, and system theories with overlapping ideas of teachers' and students' influence on and by relationships and the attainment of psychological needs (Davis, 2003). Attachment theory views teachers as attachment figures who are depended upon to be responsive to students' academic, social, and emotional needs, be open to communication, encourage, support, protect, and provide trust (Davis, 2003; Verschueren & Koomen, 2012). High quality teacher-student interactions are characterized by closeness, warmth, caring, and mutual respect; whereas low quality teacher-student interactions feature

elevated levels of conflict, distance, frustration, and little respect (Chong et al., 2010; Luckner & Pianta, 2011). Though the most popular perspective used in explaining teacher-student relationship phenomena, much of the attachment literature focuses on preschool and elementary populations (Murray & Zvoch, 2011; Pianta et al., 2005).

Comparable to attachment, systems theory asserts that relationships are a dyadic interplay between teachers and students and those with which they interact (O'Connor, Dearing, & Collins, 2011). Ecological systems theory understands human behavior with regards to variables such as developmental psychology and sociology, social work, family support, and early intervention. The hallmark of systems theory is that individuals can influence and be impacted by the contextual influences (Tolan & Larsen, 2014). All of these variables function within a system to influence and govern human behavior (Bronfenbrenner, 1977). Though engaging teacher-student relationships from a systems standpoint recognizes that teacher-student interactions are influenced by beliefs and external influences, there is no accounting for specific student need within these interactions (Bronfenbrenner, 1977). In addition, systems theory attempts to address multiple variables which may influence the teacher-student relationship, but does not provide the clarity of precise variables which constitute optimal teacher-student relationships and incurs variables beyond the scope of this study. As proposed by Davis (2003) and McGrath and Van Bergen (2015), the concepts of attachment, self-determination, and systems theories have overlying ideas which are useful for understanding teacher-student relationships. This study is influenced by attachment and systems theory for the understanding of teacher beliefs about teacher-student interactions, but is largely guided by self-determination theory.

Self-Determination Theory

Self-determination theory asserts that individuals are motivated through relationships when their psychological needs for autonomy, relatedness, and competence are met (Reeve, Deci, & Ryan, 2004). Autonomy refers to the level of input individuals perceive about tasks in which they are directly involved (Guay, Ratelle, Larose, Vallerand, & Vitaro, 2013; Niemiec & Ryan, 2009). Relatedness indicates one's sense of belonging with others (Martin & Dowson, 2009). In the school setting, increased relatedness prompts students and teachers to seek positive goals, to be self-motivated, and to set high expectations (Beachboard, Beachboard, Li, & Adkison, 2011; Martin & Dowson, 2009). The need for competence is associated with the need for individuals to feel capable of completing required tasks (Vlachopoulos et al., 2011).

According to self-determination theory, there are three types of motivation: intrinsic motivation, amotivation, and extrinsic motivation (Deci et al., 1991). When students and teachers are intrinsically motivated, they engage in the learning and teaching process "for the fun of it." With this type of motivation, individuals actively choose to engage academically out of their own sense of choice, in relation to their interests and values (Niemiec & Ryan, 2009). Intrinsically motivated people are fully self-determined since the academic experience is seen as an internally perceived locus of causality or originating within themselves (deCharms, 1976; Zhang, Solmon, & Gu, 2012). Amotivated persons are not inspired to engage academically (Alivernini & Lucidi, 2011). They are not encouraged by internal choice or external coercion. Externally motivated individuals engage academically in response to compulsions separate from the task (Deci et al., 1991). Since all students do not view all educational tasks as interesting or of value, this is the most common form of motivation in education (Niemiec & Ryan, 2009). Students can be extrinsically motivated by teacher and parent awards, punishment, expectations,

guilt, etc. (Shih, 2015). As seen in Figure 1, self-determination theory stipulates that there are four types of external motivations or regulations: external regulation, introjected regulation, identified regulation, and integrated regulation (Deci et al.,1991).

Figure 1. Types of extrinsic motivation within self-determination theory. *Note.* Adapted from "Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice" by C. P. Niemiec & R. M. Ryan, 2009, *Theory and Research in Education, 7*(2), pp. 133-144.

Academic performance resulting from external regulation functions only aides students in getting rewards or avoiding punishments. An example of an external regulation would be a teacher who engages a student to complete a research paper so that he will not receive a failing grade (Kohn, 2012). This form of regulation is the least autonomous and academic engagement ends when the external controls end (Assor et al., 2005). Students motivated by introjected regulation academically engage in order to reduce their shame or increase their pride associated with external controls (Shih, 2015; Vallerand, Fbrtier, & Guay, 1997). For instance, the prior teacher who is trying influence her student to complete the research paper may tell him that if he does not complete the paper and do well, she and his parents will be disappointed in him.

External and introjected regulations are interpreted by students as relatively controlling with an externally perceived locus of causality, actions due to forces outside of themselves (deCharms, 1976; Vansteenkiste et al., 2012). Identified regulation prompts students to academically engage because of its connection to a future or related interest (Gnambs & Hanfstingl, 2014; Vallerand et al., 1997). Once again the teacher with the research paper may influence her student to complete the paper by allowing the student to research and write about a topic related to the student's endeavor of becoming a veterinarian. When students are able to connect tasks which are performed in line with identified regulation, personal values, and interests, they are motivated by integrated regulation (Niemiec & Ryan, 2009). Finally, when the student completes the research paper on veterinary science because of his future career goal and his innate love for learning about animals, he is then performing due to integrated regulation. Identified and integrated regulation are the most autonomous types of external motivation; similar to intrinsic motivation, resulting behaviors are interpreted by the student as coming from within or internally perceived locus of causality (deCharms, 1976). It is important to note that motivation is influenced by social factors such as relationships with parents, teachers, colleagues, administrators, peers, etc. (Deci et al., 1991; McCoy et al., 2014). The study focused on relationships between teachers and students, since those relationships are most able to be enhanced by school personnel.

As suggested by self-determination theory, teachers also have need for autonomy, relatedness, and competence (Deci et al., 1991; Taylor & Ntoumanis, 2007). The fulfillment of these needs is also related to their motivation, actions, and interactions in education (Roth, Assor, Kanat-Maymon, & Kaplan, 2007; Roth & Weinstock, 2013). As shown in Figure 2, the process of accountability measures, controlling behaviors, and controlled motivation among students

continuously recycles itself (Pelletier & Sharp, 2009). As accountability pressures increase, teacher sense of autonomy fulfillment declines. When autonomy fulfillment decreases, teachers resort to more controlling behaviors toward teaching and interactions with students. In turn, students ascribe to extrinsic and temporary learning behaviors, as expressed in lower achievement (Shih, 2015). Finally, poor student achievement generates additional accountability measures, which starts the process all over again.

Figure 2. The effects of educational pressures on teachers' interpersonal behaviors and students' motivation. Adapted from "Administrative pressures and teachers' interpersonal behavior in the classroom" by L. G. Pelletier & E. C. Sharp, 2009, *Theory and Research in Education*, *7*(2), pp. 174-183.

Studies have conclusively linked teacher perception of their own autonomy within education and support for student autonomy (Taylor, Ntoumanis, & Standage, 2008; Zhang et al., 2012). Teachers with greater sense of autonomy tend to support students' autonomy as evidenced through positive teacher-student relationships and fewer controlling behaviors (Roth & Weinstock, 2013). This study investigated lesser known relationships involving teacher support for student autonomy, sense of responsibility for positive teacher-student relationships

and student achievement. Self-determination theory offered specific constructs of autonomy, relatedness, and competence which illustrated student interpersonal needs and were operationalized to indicate teacher beliefs about meeting these needs. In addition, self-determination theory posits a testable theory which stipulates that teacher support for student autonomy and interpersonal behaviors with students are related to increased teacher responsibility for student achievement imposed by external forces (Deci, Schwartz, Sheinman, & Ryan, 1981; Pelletier & Sharp, 2009).

Standards-Based Reform Overview

Over the last four decades, the United States has undergone a series of standards-based educational reforms aimed at the universally supported goal of improved student achievement throughout the nation (The National Commission on Excellence in Education, 1983; United States Department of Education, 2001, 2009, 2015). Modern day reform can be traced back to the *Nation At Risk* report which showed American student achievement on the decline, and in some areas, lagging behind other industrial nations (The National Commission on Excellence in Education, 1983). As a way to revive education in America, the report made recommendations for change in the areas of content, standards and expectations, time in school, teaching, and leadership/fiscal support. These recommendations spurred more accountability in schools. Afterwards, No Child Left Behind (NCLB) legislation in 2000 ushered in standards-based accountability systems which measured individual schools and school districts (United States Department of Education, 2001). Under NCLB, systems and schools were evaluated according to student graduation rates, student participation, and performance on standardized tests according to their overall population and student subgroups by race, free/reduced lunch status, Individual Educational Plan (IEP), and Limited English Proficiency (LEP) status.

In the state of Georgia, the middle school standardized assessment was the Criterion-Referenced Competency Test (CRCT) up until the 2013-2014 school year, after which the test was replaced by the Georgia Milestone End of Grade test (Beaudette, 2014). Scores from the 2014-2015 and 2015-2016 milestone test administrations have not been utilized in schools for promotion and retention decisions due to initial year evaluation and computer concerns during test administration in the second year (Georgia Department of Education, 2016a). Therefore, final 2013-2014 CRCT administration data was used in the study. In the last three administrations of the CRCT, the percentages of all Georgia middle school students who meet or exceed standards by content area were fairly consistent (Governor's Office of Student Achievement, 2014). During testing years 2012 through 2014, the percentage range of students who met or exceeded CRCT standards across sixth, seventh and eighth grades were: 94.7% - 98% for reading, 91.90% - 95.50% for language arts, 76.65 % - 91 % for math, 72.56 % - 85. 2% for science, and 73 % - 83.5 % for social studies (Governor's Office of Student Achievement, 2014). Over 90% of students in sixth, seventh, and eighth grades generally meet or exceed standards on the reading and language arts portions of the CRCT. Student meet or exceed rates in science were consistently lower than the reading, language arts, math, and social studies portions for sixth and eighth grade students over the last three years. The 2013-2014 CRCT administration boasted increases in all sections for eighth grade students.

According to NCLB (2001) stipulations, individual schools and systems, along with their subgroups, must meet state prescribed annual measurable objectives on standardized tests and graduation rates in order to be considered as making annual yearly progress (AYP). These benchmarks increased each year ending in 100% proficiency by year 2014 (Georgia Department of Education, 2009). The NCLB was a mandate in which schools and systems, particularly those

with larger at-risk subgroups, were subjected to unreasonable expectations (Hursh, 2007). Consequently, 46 states applied for NCLB waivers and participation in Race to the Top (RTT) initiatives. Under the Race to the Top program, states compete for educational reform funds by submitting educational improvement plans devised by the state according to national stipulations (United States Department of Education, 2009). In March 2012, the state of Georgia was granted a NCLB waiver and $400 million to implement RTT initiatives (Georgia Department of Education, 2012b). These initiatives include evaluation of individual schools, systems, and their subgroups—American Indian/Alaskan, Asian/Pacific Islander, Black, Hispanic, Multiracial, White, economically disadvantaged, students with disability, and English learners—according to state mandated proficiency rates on standardized tests, graduation rates, and participation in prescribed college and career activities (see Appendices A, B and C; Georgia Department of Education, 2013b, 2013c, 2015b).

As part of Georgia's Race to the Top initiative, meet or exceeds CRCT achievement for student subgroups was evaluated against pre-established proficiency targets which increased each year and vary according to each subgroup (Georgia Department of Education, 2013c). Student subgroups are defined by race, disability, English as a second language, economic factors, and include a general state category. In addition, the academic performances of schools and districts are ranked in what is known as the College and Career Ready Performance Index (CCRPI). Incorporated within the CCRPI are performance flags which indicate each sub group's progress toward their pre-established proficiency targets. Performance flag information for the 2013-2014 CRCT shows that traditionally at-risk populations—African American, economically disadvantaged, students with disabilities, and English language learners—met participation expectations, but failed to meet state or specific subgroup proficiency targets in two or more

CRCT content areas. English language learners did not meet their subgroup or state proficiency targets in reading, language arts, math, science, or social studies. Students in the Asian/Pacific Islander subgroup were the only ones to meet participation expectations as well as state and subgroup proficiency targets in all content areas.

The Race to the Top initiatives also includes a value-added component which calculates teacher ability to increase individual student achievement from one year to the next. In the state of Georgia, the value-added system is referred to as the Georgia Student Growth Model (GSGM; Georgia Department of Education, 2014a). A method of assessing teacher quality, the GSGM measures a teacher's impact on individual student achievement by comparing that student's previous year test scores to current year test scores (Georgia Department of Education, 2012a). Interestingly, Chetty, Friedman, and Rockoff (2013) discovered that 85% of variations found in value-added measurements of teachers were found within schools as opposed to between schools.

In response to concerns regarding state autonomy and educational policy, the Elementary and Secondary Education Act of 1965 was reenacted under the Every Student Succeeds Act (ESSA) in December 2015; thus nullifying previous NCLB and Race to the Top stipulations (United States Department of Education, 2015). Under the ESSA, states gain more autonomy in forming and enforcing educational policy, in addition to the ability for schools to be evaluated by the federal government on one non-academic indicator along with standardized tests (Mathis & Trujillo, 2016). Though the ESSA does not mandate a teacher pay for performance system, there are several references to "pay for success" and "differential pay" as potential resources for initiatives such as incentivizing teachers in high need academic areas and those who work with at-risk students (United States Department of Education, 2015). Since the enactment of the

ESSA, the state of Georgia continues its use of the College and Career Ready Performance Index along with the Georgia Student Growth Model to assess growth, only in math and English language arts (Georgia Department of Education, 2016b). Currently, teacher compensation in Georgia is not contingent on student achievement data; however the current governor of Georgia is much in favor of a hybrid system which awards a portion of compensation based on a standardized scaled and the rest of compensation based on merit pay subject to student academic performance (Governor Nathan Deal Office of the Governor, 2017).

Despite the reversal of Race to the Top initiatives, value-added systems are being used to determine a portion of teacher pay (Balch & Springer, 2015; Banchero, 2011; Bates, 2016). Proponents of teacher pay for performance view these systems as a means of removing ineffective teachers, attracting more qualified teachers into the profession, and most importantly a way of retaining effective teachers (Jensen, Yamashiro, & Tibb, 2010). In the past, more aggressive implementations of pay for performance initiatives rendered teachers and administrators who were unsuccessful at increasing test scores to value-added rates over a three year period transferred or fired (Onosko, 2011). Teacher pay, evaluation, and/or employment based on student test scores has the potential to undermine teacher-student interactions (Farrelly, 2013). This phenomenon would be most disadvantageous to at-risk student populations who benefit most from positive teacher-student interactions yet are most likely to have poorer teacher-student interactions (Chong et al., 2010; Justice, Cottone, Mashburn, & Rimm-Kaufman, 2008). According to Onosko (2011):

> If we are currently seeing a lack of love in some classrooms because of NCLB testing pressure, what love remains will be replaced by a whole lot of hate under Race to the Top…. This kind of human relationship between teachers and students is likely to be

> significantly undermined in Race to the Top due to the increased test score scrutiny and sanctioning of teachers and administrators. (p. 5)

Essentially, the premise behind the accountability measures of No Child Left Behind legislation, Race to the Top, and initiatives which evaluate and/or compensate teachers based on student test scores, is that teachers are personally responsible for student performance on standardized tests and high school dropout rates, and in kind, are personally responsible for remedying these problems in education (Schraw, 2010).

Teacher Responsibility in Education

Among their many duties, teachers are typically responsible for content delivery, the engagement and management of students, assisting struggling students, providing differentiated instruction, and communication with parents and stakeholders (Ellis & Bernhardt, 1992). Teachers are also expected to protect the physical and emotional interests of their students (Brennan, 2006; Hargreaves, 2000). They must display emotional control at all times, portraying caring and kindness towards students, but repressing feelings of frustration or irritation (Beatty, 2000). In addition, teachers shoulder much of the responsibility related to the implementation and/or compliance with increasing accountability measures (Solbrekke & Sugrue, 2014). Consequently, the premise of teacher sense of responsibility is an emerging principle that is being revisited by the literature (Lauermann & Karabenick, 2013). Similar to the concept of teacher accountability, the construct of teacher sense of responsibility has evolved over the last four decades with influences along a few conceptual lines (Guskey, 1980; Kurt, 2013; Lauermann & Karabenick, 2011, 2013; Parkay, Greenwood, Olejnik, & Proller, 1988; Tschannen-Moran & Woolfolk Hoy, 2001).

Teacher sense of responsibility and locus of control. Based in social learning theory, Rotter believed that gratification, reinforcement, and awards were mechanisms which influenced individuals to perform or acquire skills and knowledge (Rotter, 1966; Rotter, Fitzgerald, & Joyce, 1954). However, individual reactions or perceptions are based on how individuals perceive their influence on receiving gratification, reinforcement, or rewards. Conceptualized along a continuum between internal and external locus of control, individuals with high internal locus of control believe that their lives are impacted by their own actions and abilities, which they control (Rotter, 1966). These individuals also believe that there are positive and negative consequences for all actions or inactions. Those with high external locus of control believe that they have little or no control over events or what other people do within the scope of their lives. These individuals tend to believe that their actions are in reaction to powerful "others," chance, supervisors, teachers, doctors, etc. who they credit for outcomes. Through the application of attribution theory, Weiner (2003) proposed that in addition to individual perception of internal versus external causes of outcomes, the stability of causes greatly influence one's perceived locus of control. Unstable causes are also organized along a continuum, ranging from individual effort to luck (Weiner, 2010). Those who view the cause of outcomes as predictable or stable, attribute those outcomes to ability (internal locus of control) or task difficulty (external locus of control). In kind, those who view the cause of an outcome to be unpredictable, attribute those outcomes to luck (external locus of control) or effort (internal locus of control).

Though the concept of locus of control originated in personality psychology literature, it has gained notoriety in many areas including education (Cook, 2012; Rotter, 1990). Murray and Staeblar (1974) studied student locus of control and teacher locus of control in relation to student test scores. They found that student test scores were not related to student locus of control,

internal or external. However, there was a connection between teacher locus of control and student achievement. Teachers with internal locus of control had higher test scores than teachers with external locus of control. Male teachers are more likely to have an internal locus of control than female teachers (Kay-Cheng, 1984). Teacher locus of control has also been found related to teacher beliefs about the classroom environment. In Turkey, Kesici (2008) studied teacher democratic attitudes toward classroom management and its relation to teacher locus of control orientation. Teachers who held stronger views on student freedom were also more likely to have an internal locus of control. In Jamaica, Cook (2012) conducted a mixed-methods study on teacher locus of control in relation to classroom practices. Teacher locus of control was related to teacher feedback methods and management of student behavior. Teachers with external locus of control placed greater emphasis on grading written work and completing curriculum requirements while teachers with internal locus of control used various methods of direct and indirect feedback with students. Also, teachers with internal locus of control expressed confidence in managing student behaviors with effective classroom management skills. Conversely, teachers with external locus of control expressed management of student behavior more related to student decision to behave or not behave.

Along with its relation to classroom management and student achievement, teacher locus of control has also been studied as an indication of teacher sense of responsibility (Bedel, 2012; Kesici, 2008; Parkay et al., 1988; Rose & Medway, 1981). Guskey (1980) created a scale for the evaluation of teacher responsibility beliefs about student successes and failures: the Responsibility of Student Achievement Questionnaire. The theoretical ideology for the scale's construction was based in locus of control, teacher external versus internal responsibility for student achievement. Surprisingly, Guskey (1980) found that teachers with higher internal locus

of control expressed greater levels of self-responsibility for both student achievements and failures. Though the premise of locus of control seemed influential in measuring teacher sense of responsibility, Guskey (1980) contended that "it seems probable a teacher's belief in self-responsibility for students' academic successes and failures might be closely associated with the expectations that teacher holds for student learning" (p. 12). In subsequent studies, researchers began to equate teacher expectations with the construct of teacher efficacy (Ashton, Webb, & Doda, 1983; Gibson & Dembo, 1984; Greenwood, Olejnik, & Parkay, 1990; Guskey, 1986). Similarly, Parkay et al. (1988) administered questionnaires to 321 teachers to assess their beliefs about stress, locus of control, and sense of effectiveness. He found that teachers with internal locus of control were more likely to take responsibility for student achievement and felt like they had a greater effect on student learning (Parkay et al., 1988). In addition, these teachers experienced lower levels of stress and more positive relationships with students, colleagues, and administrators. Parkay et al.'s (1988) work instituted a more direct study of teacher sense of responsibility. However, once again the construct of teacher sense of responsibility seemed to involve more than teachers' beliefs about control and outcomes (Soisson, 2013). In the educational arena, teacher locus of control is the degree to which teachers believe in their ability to influence the classroom environment and student achievement (Cook, 2012). However, the concept of teacher locus of control and sense of responsibility is closely linked with teacher sense of efficacy (Kay-Cheng, 1984; Toussi & Ghanizadeh, 2012).

Teacher sense of responsibility and efficacy. Rotter's theory of locus of control began the inquiry into teacher's conceptualization of responsibility and helped to illustrate a causal relationship between teacher actions and outcomes (as cited in Gibson & Dembo, 1984; as cited in Soisson, 2013). However, Bandura's (1986) theory of self-efficacy fostered the conception of

teacher efficacy which depicts teacher actions or sense of responsibility as varied actions according to individual beliefs about bringing about outcomes. Based in socio-cognitive theory, the theory of self-efficacy describes individuals' judgment about their ability to execute tasks in given areas. These beliefs are influenced by information from four sources: mastery experiences, vicarious experiences, verbal persuasion, and psychological states (Bandura, 1986). Mastery experiences are actual occurrences with failures or successes (Bandura, 1993). If an individual experiences a good performance on a previous public speaking engagement, this positive experience will influence beliefs about their ability regarding public speaking. Vicarious experiences are the witnessed experiences of others. One's viewing of another individual's successful performance of cardiopulmonary resuscitation (CPR) in an emergency situation is more likely to develop a positive belief about their own ability to learn CPR. Verbal persuasion experiences are those uttered statements of encouragement, such as "you can do it" or dissuasion, "you can't do it." Finally, physiological states allude to an individual's mental status and physical condition, which also inform their ability to be successful. Similarly to locus of control, the concept of self-efficacy has been well utilized in various domains including education (Fast, Burris, & Bartel, 2014; Magklara, Burton, & Morrison, 2014).

During the 1970s, the RAND Corporation conducted a landmark study on a newly adopted reading program in predominantly minority Los Angeles schools (Armor et al., 1976). Information on classroom atmosphere, reading program content, reading program implementation, school leadership, and teacher attitudes were gathered from principals and reading specialists in 20 schools with student populations of at least 400 students. Reading test scores from grades third through sixth, demographic information and student's sixth grade classroom and school experiences were compiled for sixth grade students. The reading program

was found effective. However, Armor et al. (1976) concluded that student background and teacher attributes were the most influential factors contributing to the variations found in reading scores for minority students. In this study, teacher attributes were described as "the extent to which the teacher believes he or she has the capacity to produce an effect on the learning of students" and was also referred to as teacher sense of efficacy (Armor et al., 1976, p. 23). Teacher beliefs about their abilities have been linked to student achievement outcomes and motivation (Armor et al., 1976; Moore & Esselman, 1992; Rezvani & Amiri, 2013). Teacher efficacy is "the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1988, p. 233). Conversely, teacher disbelief in their abilities has also been found to impact students. Warren's (2002) study of teacher expectations and efficacy with poor urban students found most of their participants had low expectations of urban students and an even lower efficacy in their ability to educate these students. Pianta et al. (2005) proposed that lower instructional quality and teacher-student relationship quality may be a function of teacher difficulty in meeting the increased needs of low SES students, often related to poverty. The inquiry into the premise of teacher efficacy originated from multiple sources: the RAND study, Rotter's locus of control, and Bandura's self-efficacy literature (Armor et al., 1976; Bandura, 1993; Guskey, 1981b; Parkay et al., 1988; Rotter, 1966). Proven to be conceptually muddled, Tschannen-Moran et al. (1988) offered an integrated model of teacher efficacy which blended the ideology of Bandura and Rotter. As proposed by Bandura (1986), efficacy information is collected through the four sources of verbal persuasion, mastery experience, vicarious experience, and physiological arousal. Through cognitive processes, teachers make analysis of given teaching tasks and their personal teaching competencies which

inform teacher efficacy, consequences of teacher efficacy and performance, and ultimately becomes a source of efficacy information. This integrated model of teacher efficacy is cyclical in nature (Tschannen-Moran et al., 1988). The source of efficacy information is continually influenced by past performance and informs the efficacy of future performance.

Once established, the integrated model for teacher efficacy allowed for the inception of collective teacher efficacy. Collective teacher efficacy is "the perceptions of teachers in a school that the efforts of the faculty as a whole will have a positive effect on students" (Goddard, Hoy, & Woolfolk Hoy, 2000, p. 480). Conceptually equivalent to teacher efficacy, collective teacher efficacy encompasses the effectiveness beliefs of a body of educators reflective of the environment in which they practice. In Goddard et al.'s (2000) study of collective teacher efficacy, they found that as a school's collective efficacy scale increased, student reading and mathematical performance increased as well. Similar results were also found in a subsequent study conducted by Hoy, Sweetland, and Smith (2002). However, the integrated model for teacher efficacy and the contemporary construct of collective teacher efficacy fail to address the initial indications of teacher sense of responsibility evident during the concept's infancy.

Teacher sense of responsibility from varied perspectives. As stated earlier, Guskey (1981a) surmised that teacher sense of efficacy was tantamount to teacher sense of responsibility. The instrument Guskey constructed to measure teacher sense of responsibility over thirty years ago is still in use (Aktas, Kurt, Aksu, & Ekici, 2013; Guskey T., 1980; Kurt, 2013; Martin, Crossland, & Johnson, 2001). However, there has been little follow up on teacher sense of responsibility in teacher efficacy literature; the concept has been largely studied through varied perspectives ranging from study as a personal characteristic to a shared sense of obligation (Kurt, 2013; Lauermann & Karabenick, 2013). A qualitative Turkish study on opinions about student

academic failure found that teachers did not express a sense of responsibility for student failures (Akbaba Altun, 2009). Instead teachers cited student failures as a result of uninvolved parents, student lack of motivation, and school system related problems. In addition, teachers did not contend with the idea that they should assume responsibility for student outcomes. Kurt (2013) investigated Turkish biology teachers' sense of responsibility for student successes and failures with respect to gender, length of teaching experience, sense of efficacy, attitudes toward teaching profession, and number of students in the classroom. There was a positive correlation between high teacher efficacy, positive attitude toward teaching profession, and overall sense of responsibility for student achievement. Teachers were found to assume more responsibility for student academic gains than academic failure and those with larger classes assumed more responsibility for student outcomes than those with smaller classes. Similar findings were uncovered when Aktas and his colleagues conducted a follow up study (Aktas et al., 2013). Though the previously illustrated studies all focus on or allude to teacher sense of responsibility, each defines and measures the concept through varied lens. According to Lauermann and Karabenick (2013):

> There has been insufficient attention to both the conceptualization and the assessment of teacher responsibility, including the distinction between responsibility and such closely related constructs as teacher efficacy (i.e., teachers' confidence in their capability to produce desired effects in their classrooms). (p. 13)

Teacher sense of responsibility as a multivariate construct. The responsibility implied by increasing accountability systems for teachers in the classroom necessitate a more concrete definition and measurement of teacher sense of responsibility (Clotfelter, Ladd, Vigdor, & Aliaga Diaz, 2004). In her efforts to study teachers' views about their responsibilities and the

situations in which they were willing to accept responsibility for student outcomes, Lauermann (2013) looked to the personal responsibility literature to guide a multivariate understanding and measurement of teacher sense of responsibility. As defined by Lauermann and Karabenick (2011), personal responsibility is "a sense of internal obligation and commitment to produce or prevent designated outcomes or that these outcomes should have been produced or prevented" (p. 135). Lauermann utilized Lenk's model of responsibility which stipulates:

> *Someone*: the subject or bearer of responsibility (a person or a corporation), is responsible *for: something* (actions, consequences of actions, situations, tasks, etc.), *in view of: an addressee* ("object" of responsibility), *under supervision or judgment of:* a judging or sanctioning *instance, in relation to:* a (prescriptive, normative) *criterion of attribution of accountability, within: a specific realm of responsibility and action.* (as cited in Lauermann, 2013)

Lenk's model is adept in helping to construe teacher responsibility; the model answers six concerns essential to teacher sense of responsibility: who is responsible, what are they responsible for, who are they responsible for, who determines responsibility, what is the criteria for responsibility, and within which realm is their responsibility (as cited in Lauermann, 2013). The initial component, *who* is responsible, refers to the individual or entity who is judged to be responsible or assumes responsibility (Weiner, 2010). The person or entity whom is deemed accountable is often subject to who is making the judgment of responsibility (Peterson et al., 2011). James' pertinent study surveyed school girls from New Zealand and found that students with lower socioeconomic status believed that their teachers were responsible for their learning (as cited in Peterson et al., 2011). Students with higher socioeconomic status believed that they were responsible for their learning. Expanding upon James' work (as cited in Peterson et al.,

2011), a qualitative study was conducted assessing the responsibility beliefs of students, parents, and teachers in America. Overall, students, parents, and teachers expressed that students were largely responsible for their own learning. However, parents and students expressed that contextual influences affected student learning. Specifically, positive teacher-student relationships were conveyed as essential for student learning, and the responsibility to cultivate those relationships lay predominantly with teachers.

What Peterson et al.'s (2011) study participants relayed as contextual influences ties directly into the second component, the *for what*, of teacher sense of responsibility. As expressed by Lauermann (2013), this component encompasses "outcomes for which teachers feel responsible, such as actions, consequences of the actions, actions of others for whom one is vicariously responsible and tasks" (p. 122). Examples of the for what component include time spent in professional development, attention paid to teacher-student interactions, and the creation of a supportive classroom environment (Halvorsen, Lee, & Andrade, 2009; Tate, 2007). Studies of what parents and students view of as the for what often hold teachers responsible for poor student performance and failures, while teachers hold parents and students responsible for poor performance (Aktas et al. 2013; Kurt, 2013; Peterson et al., 2011). Embedded within this component is the distinction of what teachers feel responsible for versus for what teachers are held responsible (Lauermann, 2013). According to self-determination theory, this differentiation assists in the understanding that persons who are deemed responsible by others but do not consider themselves responsible are less likely to fully engage, thus making necessary external controls (Deci et al., 1991). Conversely, individuals who feel responsible are likely to fully engage without the threat and/or need of external controls.

The third component stipulates *to* or *for whom* teachers are held responsible. Due to the teacher pupil relationship, teachers are essentially held responsible for students (Brennan, 2006). However, in a comparative study, Broadfoot, Osborn, and Gilly (1988) investigated to whom French and English teachers believed they were responsible. French teachers expressed their primary responsibility was to students, while English teachers felt responsible to students, parents, the community, and others. Broadfoot et al. (1988) attributed these differences to the teachers' respective educational systems. French teachers were given very specific curricular standards which focused on the education needs of students, and although English teachers were given a curriculum, there was more latitude in regards to their professional responsibilities. Consequently, English teachers perceived responsibility to more than just their students and the need to substantiate their work to those outside the classroom. In a similar study Fischman, DiBara, and Gardner (2006) found that teachers in the United States believed that students were their primary responsibility. Yet, they also felt a responsibility toward coworkers, parents, the community, employers, their families, and themselves.

The fourth component, *who is the judge* relates to who determines and evaluates the fulfillment of responsibility. As Lauermann's (2013) focus is teacher judgment of their own sense of responsibility, this component is less explored. Similarly, this study seeks teacher evaluation of their individual responsibility. However, high stakes government policies such as No Child Left Behind, Race to the Top, and state educational departments do provide accepted institutional definitions of judges who inspect a teacher's ability (Schraw, 2010).

The fifth component, *in relation to what*, relates to the criteria which teachers are judged or judge themselves responsible. To elaborate on this concept, Lauermann looked to the work of Twiss (1977). During his study on moral responsibility in medicine, Twiss (1977) determined

that there were three bases which prompted an individual to judge themselves or someone else responsible: normative, descriptive, and role responsibility. Individuals feel normative responsibility in response to explicitly or implicitly established legal or moral standards of proper behaviors. Role responsibility relates to responsibility behaviors attached to social roles and relationships, such as teachers, parents, and clergy. Descriptive responsibility is concerned with outcomes or individuals who bring out an outcome. The final component, *in what realm*, describes areas one may be judged responsible. For teachers, the areas of responsibility may include the classroom and acquiring professional development.

The concept of teacher sense of responsibility has developed through varied theoretical lenses over the last four decades (Guskey, 1980; Kurt, 2013; Lauermann & Karabenick, 2011, 2013; Parkay et al., 1988; Tschannen-Moran & Woolfolk Hoy, 2001). Lauermann's (2013) understanding of teacher sense of responsibility as a multivariate construct with specified variables allows for further inquiry for a construct which has been theoretically muddled. Since the establishment of teacher sense of responsibility as a multivariate concept, there have been investigations into general student achievement as related to teacher job satisfaction, prospective teacher beliefs, and teacher responsibility beliefs (Aliakbari & Babanezhad Kafshgar, 2013; Altay, 2015, Aktas et al., 2013). Interestingly, Lauermann and Karabenick, (2011) called for the study of teacher responsibility in relation to student and teacher outcomes in their original work. However, at the time of this study there was no known literature which featured direct student or teacher achievement data as related to teacher sense of responsibility.

The current study endeavors to add to the literature, but must rely on previous representations of the concept to inform about the relationship between teacher responsibility and student achievement. Defined as an attitude associated within a larger community dynamic, Lee

and Smith (1996) investigated the effect of collective teacher responsibility and student achievement. The study consisted of 11,692 high school sophomores from 820 high schools across the nation along with 9,904 of their teachers. Though the sample size was extensive, results were consistent. Student achievement in all areas was significantly higher in schools where teachers took collective responsibility for student successes and failures. Similarly, Eberle's (2011) work on self efficacy and student achievement on the North Carolina End of Grade test indicated a relationship between low math achievement and low efficacy beliefs among individual teachers.

While there are few studies which relate specific achievement data to teacher beliefs and attitudes, there does seem to be a connection between the two variables (Eberle, 2011; Lee and Smith, 1996). There is also evidence that teachers do feel some sense of responsibility for overall student achievement (Aktas et al., 2013). However, this project's aim was to uncover relationships between teachers' sense of responsibility for growing positive teacher-student relationships and academic student achievement. Studies have shown that as teachers are pressured to increase student performance, interactions with students become more negative and controlling (Deci et al., 1991; Pelletier & Sharp, 2009). Students at risk for academic failure, such as minority students and students from low socioeconomic backgrounds, are most in need of positive teacher-student relationships as a means of supporting achievement (Burchinal, Peisner-Feinberg, Pianta, & Howes, 2002; McGrath & Van Bergen, 2015). Though individual teachers tend to have a lesser sense of responsibility as opposed to a group of teachers, the entire school, or community, their sense of responsibility for fostering positive autonomy supportive teacher-student relationships will be a key factor in supplying this need to students at risk during these times of increasing accountability (Chong et al., 2010; Silverman, 2010). As current trends

in educational reform continue, the questions posed by this work will become ever more pertinent (Farrelly, 2013; Hamre et al., 2012; Myers & Pianta, 2008).

Review of Related Literature

There is much data which purports the importance of teacher-student relationships in education (Baker, 2006; Decker et al., 2007; Farmer, McAuliffe-Lines, & Hamm, 2011; Hughes & Kwok, 2007; Roorda et al. 2011; Saft & Pianta, 2001). Positive relationships between teachers and students lead to positive outcomes for educators and students (Spilt et al., 2011). However, the quality of these relationships is also influenced by teacher and student characteristics and behaviors (Pianta, Hamre, & Stuhlman, 2003). Because the focus of this study is on teacher interactions with at-risk students, it is necessary to consider literature about relationship quality in respect to at-risk students and teacher behaviors.

Teacher-Student Relationships

Students who enjoy positive interactions with teachers are often found to have increased academic motivation and achievement (Hughes, Luo, Kwok, & Loyd, 2008; Wu et al., 2010). These types of relationships which fulfill students' need for autonomy, competence, and relatedness are thought to motivate learning (Davis, 2003; Jang, Reeve, & Deci, 2010). McCormick, O'Connor, Cappella, and McClowry (2013) conducted a year-long study of students observed three times between the kindergarten year and the first few months of first grade. During each observation, data collection included assessments on the Applied Problems subtests of the Woodcock–Johnson III Tests of Achievement and teacher reports on the teacher-student relationship. Teacher-student relationship quality was assessed during the initial observation along with student baseline math data. McCormick et al. (2013) found that students who had more positive relationships with their kindergarten teachers also showed higher achievement on

the math assessment during the first grade year, a full year after the onset of the positive teacher-student relationship. In fact, students who experience relationships with their teachers characterized as positive, supportive, and responsive, are more likely to graduate from high school (Barile et al., 2012; Englund et al., 2008). Englund et al.'s (2008) study on the influence of adult-child relationships found that those students whose predictive variables forecasted high school graduation showed significant difference in actual high school graduation and dropout rates in relation to parent-child and teacher-student relationships. Adult relationships greatly influenced the academic trajectory of those students who were already academically, socially, and emotionally sound. The findings of this study highlight that the negative influences of parent-child or teacher-student relationships can destroy student academic outcomes, just as positive adult-child relationships can cause the same student to flourish. Hamre and Pianta (2001) and Wu et al. (2010) also found similar results in their work on teacher-student relationships and student trajectory. In fact, up to eight years after recorded teacher-student relationship events, academic achievement was still shown to be positively correlated to the quality of the earlier teacher-student relationship (Hamre & Pianta, 2001).

Teacher and at-risk student relationships. Student characteristics such as race, gender, special education status, socioeconomic status, and English as a second language learner status place the student at greater risk for academic failure (Delano-Oriaran, 2013). McGrath and Van Bergen (2015) also used the term at-risk to describe students who are in greater danger of having negative relationships with teachers. Oddly, risk factors for negative teacher-student relationships include, but are not limited to, student gender, ethnicity, socioeconomic status, and student disability (McGrath & Van Bergen, 2015). The factors which place students at-risk for academic failure also place them at-risk for negative teacher-student relationships. Accordingly,

at-risk students are also more likely to experience negative teacher-student relationships (Decker et al., 2007; Emmen et al., 2013; Murray & Greenberg, 2001; Saft & Pianta, 2001). Positive teacher-student relationships have been identified as a buffer against outcomes related to poor student behavior, low academic performance, and social immaturity (Farmer et al., 2011; O'Connor et al., 2011). They offer greater benefits to students who are most at-risk for academic failure; as positive teacher-student relationships are more influential toward academic gains for minority and low income students than non-minority and higher SES students (Burchinal et al., 2002; Little-Harrison, 2011). The mediating effect of quality teacher-student relationships on academic achievement is most substantial among students at-risk for academic failure (Chong et al., 2010; Decker et al., 2007). However, these students are least likely to experience these interactions (Hamre & Pianta, 2001). According to the National Institute of Child Health and Human Development, first grade teachers in schools with higher populations of children living below the poverty line tend to have fewer sensitive and positive teacher-student interactions with their students (as cited in Pianta et al., 2005). In Pianta et al.'s (2005) study of elementary classrooms, classes with greater amounts of low SES students were found to receive lower instructional quality than those classrooms with increased amounts of higher SES students.

Similarly, students with disabilities and students who are maladjusted to the school environment also report less connection with their schools and teachers (Justice et al., 2008; Murray & Greenberg, 2001; Murray & Zvoch, 2011). Murray and Greenburg's (2001) study of teacher-student relationships found that students with disabilities rated relationships with teachers significantly poorer than students without disabilities. Though research indicates positive teacher-student relationship quality is connected to student achievement, teachers are

less likely to experience positive teacher-student relationships with at-risk students (Baker, 2006; Burchinal et al., 2002; Chong et al., 2010; Decker et al., 2007).

African American students have the greatest likelihood of experiencing negative relationships with teachers (Hamre & Pianta, 2001). The increased probability of negative teacher-student relationships with African American students may be related to teacher beliefs (Natesan & Kieftenbeld, 2013). Studies have shown that teachers have a lower sense of efficacy for teaching African American students (Costner, Daniels, & Clark, 2010; Natesan & Kieftenbeld, 2013). Along with a low sense of teaching efficacy, teachers also have lower expectations of African American students (Banks, Dunston, & Foley, 2013; Little-Harrison, 2011; Lynn, Bacon, Totten, Bridges III, & Jennings, 2010). Some of these perceptions may be due in part to a very real national graduation rate which is eleven points below the national average of 88% or belief in false stereotypes which characterize African American students as less intelligent compared to other students (Barnes, 2006; Stetser & Stillwell, 2014). Overall, teachers tend to express negative attitudes about the task of teaching African American students, and this trend is less likely to improve with evaluation systems which tie student performance to teacher evaluation and/or compensation (Costner et al., 2010).

Toward the aim of addressing this disconnect between teachers and at-risk students, the individual influences such as race, socioeconomic background, and gender have been explored (Murray & Greenberg, 2001; Tosolt, 2009). Though differences in gender, socioeconomic background, and race often result in poorer teacher-student relationships, students have also shown achievement gains in content subjects irrespective of ethnic variance between teachers and students (Ikegulu, 2009; Saft & Pianta, 2001). In addition, contextual concepts such as school climate, social support, “student liking or disliking of teacher,” parent teacher

relationships, student behavior, and trust have also been examined as they related to teacher-student relationships (Hughes & Kwok, 2007; Montalvo, Mansfield, & Miller, 2007; Murray, Murray, & Waas, 2008; Myers & Pianta, 2008; Rhodes, Camic, Milburn, & Lowe, 2009). While each of these concepts are shown to influence teacher-student relationships, teacher actions toward fostering relationships are the most significant component regarding the quality of relationships between teachers and students (Davis, 2003; Englund et al., 2008; Murray et al., 2008; Myers & Pianta, 2008).

Teachers and autonomy supportive and controlling teacher-student relationships. Undoubtedly, teacher beliefs impact teaching, learning, and teacher-student interactions (Rezvani & Amiri, 2013; Warren, 2002). Teacher pedagogical perspectives which are linked to classroom practices, beliefs about student ability, are often self-fulfilling prophecies of student performance, and even teacher beliefs about their own ability to impact learning (Fives & Buehl, 2008; Gordon, Dembo, & Hocevar, 2007; Rubie-Davies et al., 2011). However, less is known about the impact of teacher beliefs about teacher-student interactions and their connection to student achievement (Davis, 2003).

Studies on teacher motivation style have given the most insight on teacher beliefs about teacher-student interactions as motivation style is attributed to teacher insight on motivating students (Assor et al., 2005; Niemiec & Ryan, 2009; Reeve, 2006). Grounded in self-determination theory, teachers interact with students on a continuum of highly controlling to highly autonomy supportive behaviors (Flink, Boggiano, & Barrett, 1990; Niemiec & Ryan, 2009). Teachers who foster interactions which promote student ideals and interests so that students perceive learning as function of choice are noted as highly autonomy-supportive (Vansteenkiste et al., 2012). "Autonomy-supportive teachers facilitate students' personal

autonomy by taking the students' perspective; identifying and nurturing the students' needs, interests, and preferences; providing optimal challenges; highlighting meaningful learning goals; and presenting interesting, relevant, and enriched activities" (Jang et al., 2010, p. 589). These interactions support student's basic psychological need for autonomy, relatedness, and competence, which foster intrinsic student motivation and deeper student learning (Vansteenkiste et al., 2012; Vlachopoulos et al., 2011). Subsequently, highly controlling teachers neglect student values, psychological needs, and personal interests (Reeve, 2006). Often these interactions are rigid and regimented, and extrinsically motivate students through external rewards and punishment, producing only temporary gains in learning (Vansteenkiste et al., 2012).

The characteristics used to portray highly controlling teachers are often used to describe the behaviors of a typical teacher in China (Rao, 2006). However, student achievement outcomes and student perception of teacher interaction in China is contradictory to those of their western peers (Organization for Economic Cooperation and Development, 2007; Zhou, Lam, & Chan, 2012). According to self-determination theory, students in more teacher controlled classrooms should have more negative academic outcomes (Deci et al., 1991). However, data from the Organization for Economic Cooperation and Development (2007) indicate that Chinese students academically outperform western students. To study this anomaly to self-determination theory, Zhou et al. (2012) organized a study of American and Chinese students' perceptions of teacher controlling behaviors and their social emotional relatedness with teachers as linked to their motivation to perform academically. There were a total of 273 fifth graders, 115 American students from public schools in Northwest Indiana and 158 Chinese students from mainland China. The students from the United States were all Caucasian. Participants were asked to

respond to two scenarios modified from the Problems in Schools Questionnaire which gauges teacher and adult support for student autonomy, relatedness, and competence in school (Deci et al., 1981). Students responded to the scenarios the way they believed their teachers would respond. Students also completed items from the Internalization Scale of Teacher as a Social Context Questionnaire, and the Engagement Versus Disaffection with Learning Scale. The Internalization Scale was used to measure students' internalization of teachers' values. The extent to which students felt a socio-emotional connection to their teachers was measured by the items from the Teacher as a Social Context Questionnaire. The final measure, items from the Engagement Versus Disaffection with Learning Questionnaire gauged student motivation for learning. Most of the findings were conclusive. Compared to American students, Chinese students viewed teacher behavior as less controlling. Overall American and Chinese students expressed high levels of socio-emotional relatedness with teachers and teacher behaviors as less controlling. American students who viewed teachers as more controlling were less likely to internalize teacher values and expressed less motivation toward academic achievement. Zhou et al. (2012) reasoned that the perception of teacher controlling behavior was a function of students internalizing of teachers' beliefs and values. Even if a teacher's behavior seemed controlling, student internalization or non-internalization of teacher beliefs and values determined student view of teacher behavior and ultimately motivation to achieve. Therefore, the variability of the Chinese classroom is directly tied to student perception of teacher controlling behaviors. As stipulated in self-determination theory, socio-emotional relatedness via the teacher-student relationship largely influences student motivation. Interestingly, high controlling interactions associated with classrooms in China are often used by the teacher as a means of maintaining classroom structure (Jang et al., 2010).

Jang et al. (2010) studied the relationship between teacher autonomy support, teacher provided structure, and student engagement. They investigated if the association between these variables were positively correlated, negatively correlated, or curvilinear. The study consisted of 133 teachers and 2,523 high school students from the Midwest. Teacher supported autonomy and teacher provided structure were assessed with the use of trained observers who rated classes and administered student assessments. Teacher support for autonomy was judged along three 7-point continuums ranging from extrinsic sources of motivation to inner motivational resources, controlling language to informational language, and counters students' negative affect to accepts students' negative affect. Teacher structure was also judged along three 7-point continuums: absent, unclear, ambiguous, confusing directions during the introduction to clear, understandable, explicit, detailed directions during the introduction, weak guidance during the lesson to strong guidance during the lesson, and ambiguous or absent feedback to skill building feedback. Individual student engagement was measured via a 7-point Likert scale student self-reports consisting of four items, with the question stem of "during this class," "I paid attention," "I worked very hard," "I tried to learn as much as I could," and "I enjoyed today's class." Collective engagement was gauged via the trained observers who observed student attentive effort, verbal participation, persistence, positive emotion, and voice. Jang et al. (2010) found a significant positive zero order correlation between teacher autonomy support and teacher provided structure. In addition, there was also a positive correlation between student engagement and both teacher support for autonomy and teacher provided structure. The findings of this study show that teacher support for student autonomy does not negate teachers' ability to provide structure within the classroom. The presence of teacher support for autonomy and teacher provision of structure actually predicts increased student engagement. Fulfillment of

student need for autonomy and competence is linked to student motivation and engagement, constructs which are directly influenced by the teacher-student relationship (Niemiec & Ryan, 2009; Reeve et al., 2006). However, student need for autonomy is often seen as contrary to teacher need for control (Davis & Andrzejewski, 2009).

Though not grounded in self-determination theory, pupil control ideology asserts that teachers' beliefs about teacher-student interactions are closely associated with teachers' control orientation (Willower, Eidell, & Hoy, 1969). Teachers who ascribe to high control are more rigid in their interactions with students and are described as custodial or authoritarian. On the other end of the Pupil Control Ideology continuum are teachers who cultivate student autonomy. Described as humanistic or student centered, these teachers are inclined to foster more caring relationships with students. Interactions with students from an authoritarian or teacher-centered viewpoint are often inattentive, regimented, and less likely to generate productive teacher-student relationships (Adwere-Boamah, 2010; Gürsimsek, 2014). Teachers, who hold child-directed or more humanistic beliefs about interactions with students are mindful of students' emotional and physical interests, engage in two way communication, value the views of students, maintain clear expectations for behavior, and foster age appropriate autonomy (Adwere-Boamah, 2010; Gürsimsek, 2014). Over the long term, these teachers enjoy more effective relationships with students (Burchinal et al., 2002). Consequently, students who enjoy high quality teacher-student relationships are often found to have increased academic motivation and achievement (Hughes et al., 2008).

The reliance on controlling interactions is especially pronounced when teachers perceive increased pressure and responsibility to improve student achievement (Deci et al., 1991). Flink et al. (1990) were among the first to study student-teacher interactions among teachers who were

pressured to have their students excel at a task and made responsible for resulting student performance. The sample consisted of 15 fourth-grade teachers and 267 students from seven schools in a Colorado school district. Teachers were randomly assigned to two groups: pressure condition (N = 8) and non-pressure condition (N = 7). One week prior to the experiment, teachers from both groups completed the Problems in School Questionnaire. On the assessment teachers were instructed to rate the appropriateness of highly autonomous, moderately autonomous, moderately controlling, and highly controlling responses to eight vignettes. Teachers in the non-pressure condition were told "your role will be to facilitate the children's learning how to solve the anagrams and sequencing problems. Your job is simply to help the students learn how to solve the problems" (Flink, 1990, p. 918). Teachers in the pressure condition were told:

> Your role will be to ensure that the children perform well on the anagrams and sequencing problems. It is a teacher's responsibility to make sure that students perform up to standards. If, for example, your students were tested on the problems, they should be able to do well. (Flink et al., 1990, p. 918)

Afterwards, teachers were allowed to complete the sequencing tasks and solve the anagrams on their own and then taught two groups of students for ten minute sessions. The students were then evaluated on their knowledge of anagrams, spatial relation tasks, which were not taught during the group teaching sessions, and sequencing. Flink et al. (1990) found that students taught by non-pressured teachers were more successful on anagrams and spatial relation and sequencing tasks than students who were taught by pressured teachers. However, pressured teachers were assessed by researchers as being more concerned about the teaching tasks and more enthusiastic when presenting before their students. Though these teachers offered more

critiques to their students, both negative and positive, they were perceived by students as being more competent. Non-pressured teachers allowed more independent work among their students and were more likely to self-disclose. While Flink et al. (1990) were able to link imposed teacher responsibility for student achievement to more controlling interactions, they did not quantify teacher sense of responsibility and its relation to teacher beliefs about controlling and autonomous behaviors.

More recently, Pelletier and Sharp (2009) reviewed studies which portrayed the effects of administrative pressure on teacher-student interactions in the classroom. Teachers tended to favor less student autonomy when they felt like their students were extrinsically motivated or not motivated toward academic achievement. In their literature review, Pelletier and Sharp (2009) also found that time constraints, high stakes testing, and curriculum restrictions were sources of administrative pressure for teachers. As these pressures increased, teachers exhibited more controlling behaviors with their students (Niemiec & Ryan, 2009). Taylor et al. (2008) found similar results in their study of teacher need satisfaction. In this study teacher need satisfaction was defined as teachers' need for autonomy, competence, and relatedness. Administrative pressures were illustrated as time constraints, burdens from administrative personnel, and the use of student performance as a basis for evaluation. When teacher perception of administrative pressures increased, their perception of need satisfaction decreased. Consequently, teachers who expressed less need satisfaction were less likely to provide for student need satisfaction (Klassen, Perry, & Frenzel, 2012).

Though the focus of this research is teacher support for students' need autonomy via positive teacher-student relationships, the literature indicates that teacher need satisfaction is an integral component of their support for student needs of autonomy, relatedness, and competence

(Roth et al., 2007; Taylor et al., 2008; Wagner, 2010). Teacher need satisfaction is often examined as being fulfilled by colleagues or administrators. But, there is emerging work on teacher competence fulfillment in teacher-student relationships. In general, people want to have positive caring relationships with those they come into close proximity (Spilt et al., 2011).

By nature of the set-up, teachers and students spend many hours in classrooms in close proximity, thus making teacher-student relationships important to teachers. Negative or poor relationships with students directly contradict teachers' need for relatedness, autonomy, and competence (Spilt et al., 2011). Therefore, teachers' lack of need satisfaction in the teacher-student relationship is connected to poor teacher well-being and poor teacher-student interactions (Hargreaves, 2000; Newberry & Davis, 2008).

Due to the practicalities concerning school board policies, state laws, and the tenets of structure within self-determination theory, Pelletier and Sharp (2009) do not advocate the removal of time constraints, curriculum restrictions, and high stakes testing. Instead, they suggest communication between teachers and administrators as a way to foster teacher autonomy. For instance, Davis (2003) investigated Australian teachers' understanding and agreement with the school mission and its related goals. Davis (2003) found that the more teachers understood and agreed with the mission and goals of the school, the less likely they were to experience emotional exhaustion, and they expressed more feelings of accomplishment. The work of Davis (2003), Pelletier and Sharp (2009), and Taylor et al. (2008) all point to a connection between teacher experience of administrative support and teacher support for students. While these studies show a clear link between teacher experience of accountability pressure and teacher support for student autonomy, clear values of student academic achievement are not signified in these works. Self-determination theory does suggest the

relationship between these variables, but there have been few studies to relate them to academic data (Whaley, 2012).

Summary

Local and federal policies which pressure teachers into only valuing academic growth as displayed on standardized measures run contrary to teacher professional convention concerning teaching and learning (Valli & Buese, 2007). As responsibility increases, teachers become more controlling in their interactions with students, and the significance of positive teacher-student interactions becomes undermined (Deci et al., 1991). The literature clearly indicates a link between teacher-student relationships and student achievement and teachers' central role in fostering positive teacher-student relationships (Decker et al., 2007; Hughes & Kwok, 2007; Murray et al. 2008; Saft & Pianta, 2001). Yet, little is known concerning teachers' beliefs about their responsibilities in fostering relationships which support student autonomy, nor the connection of these beliefs to student outcomes (Davis, 2006).

> Given the potential negative outcomes for students who drop out of school, and the beneficial effects of a strong student-teacher relationship, educators must recognize the impact they can have on students' success, and acquire the necessary skills to cultivate positive relationships with them. (Anderson, Richardson, Webb, Nelson, & Young, 2011, p. 270)

Anderson et al.'s (2011) call to improve interpersonal relationships between teachers and at-risk students undoubtedly highlights the need for study concerning teacher beliefs about fostering teacher-student relationships.

CHAPTER THREE: METHODS

Overview

Through a quantitative research design this project examined the relationship between teacher perceptions of their responsibility for teacher-student relationships, support for student autonomy in those relationships, and the connection to their students' academic gains. Quantitative investigations review phenomena through structured and objective methods with the hopes of gaining new insight and knowledge. The following chapter outlines the research design, site, subjects, instrumentation, data collection, and data analysis by which the relationship between teacher views on teacher-student interactions and student achievement were explored.

Design

This study utilized descriptive methods to illustrate teacher sense of responsibility for fostering teacher-student relationships, support for student autonomy, and academic gains on the 2013-2014 CRCT administration. The data were then used for correlation inquiry into possible relationships, direction, and strength of relationships concerning the variables: teacher sense of responsibility for fostering teacher-student relationships, support for student autonomy, and teacher growth percentiles medians for the 2013-2014 CRCT which reflect student achievement. In the literature, correlation research is often used to ascertain teacher beliefs (Bas, 2011; Shih, 2015; Thompson, Warren, & Carter, 2004; Tosolt, 2009). This type of non-experimental design is most appropriate as it discerns patterns and relationships between two or more variables (Ary, Jacobs, Razavieh, & Sorensen, 2006; Howell, 2007).

Research Questions

RQ1: Is there a correlation between middle school teacher support for autonomy, as measured by the Problems in Schools Questionnaire (PIS), and teacher sense of responsibility for positive teacher-student relationships, as measured by the Teacher Responsibility Scale (TRS)?

RQ2: Is there a correlation between teacher support for autonomy, as measured by the Problems in Schools Questionnaire (PIS), and teacher growth percentile medians reflecting student achievement gains, measured by the Georgia middle school Criterion-Referenced Competency Test (CRCT)?

RQ3: Is there a correlation between teacher sense of responsibility for positive teacher-student relationships, as measured by the Teacher Responsibility Scale (TRS) and teacher growth percentile medians reflecting student achievement gains, measured by the Georgia middle school Criterion-Referenced Competency Test?

Hypotheses

The null hypotheses for this study are:

H_o1: There is no significant correlation between teacher support for student autonomy scores on the Problems in Schools Questionnaire (PIS) and teacher sense of responsibility for student interaction scores on the Teacher Responsibility Scale (TRS).

H_o2: There is no significant correlation between teacher support for student autonomy scores on the Problems in Schools Questionnaire (PIS) and teacher growth percentile medians reflecting student achievement gains on the 2013-2014 Georgia middle school Criterion-Referenced Competency Test (CRCT).

H_o3: There is no significant correlation between teacher sense of responsibility for student interaction scores on the Teacher Responsibility Scale (TRS) and teacher growth

percentile medians reflecting student achievement gains on the 2013-2014 Georgia middle school Criterion-Referenced Competency Test (CRCT).

Participants and Setting

Through the use of convenience sampling, study participants consisted of 43 teachers from a middle school located in Georgia. Teachers were from sixth, seventh, and eighth grade levels and taught English, math, science, social studies and reading during the 2013-2014 school year. Though the sample size was small, it exceeded sample size numbers required to produce a large effect at a .05 significance level (Decker et al., 2007). Study participants were those teachers from the sample group who agreed to complete survey materials and allowed the researcher to use growth model percentile information from the 2013-2014 CRCT administration. Sixty-five faculty at the target school were solicited for participation in the study irrespective of instructional grade level, teacher ethnicity, years of experience, educational setting, or gender.

Certified personnel, office staff workers, cafeteria workers, custodians, and one student resource officer are utilized in serving the educational needs of the target school. During the 2010-2011 school year, there were 90 certified personnel, for a 13 to 1 student/teacher ratio. There were five administrators, including the principal and 79 teachers. Over three quarters of the staff have worked within the field of education over one year (Georgia Department of Education, 2011b).

According to the 2010 U.S. Census Bureau (2010), 15% of the families who live in this southeastern city are headed by single women. While 72.3% of all individuals age 16 and over are part of the labor force, the average annual income across all households in this city is

$68,351. In addition, 87.4% of this city's population has obtained a high school diploma or its equivalent, but less than 30.7% have attained a college degree.

Approximately 980 students attend the target school. Over 80% of the student population is categorized as Black, 9% as Hispanic, and under 4% as White. Eighty three percent of the students receive free and reduced lunch. Free and reduced lunch percentages for the local system and state populations are 44% and 57% respectively. In addition, the special education population percentage of 12% is comparable to the system's special education percentage of 10% and the state's special education percentage of 10% as shown in Figure 3 (Georgia Office of Student Achievement, 2011).

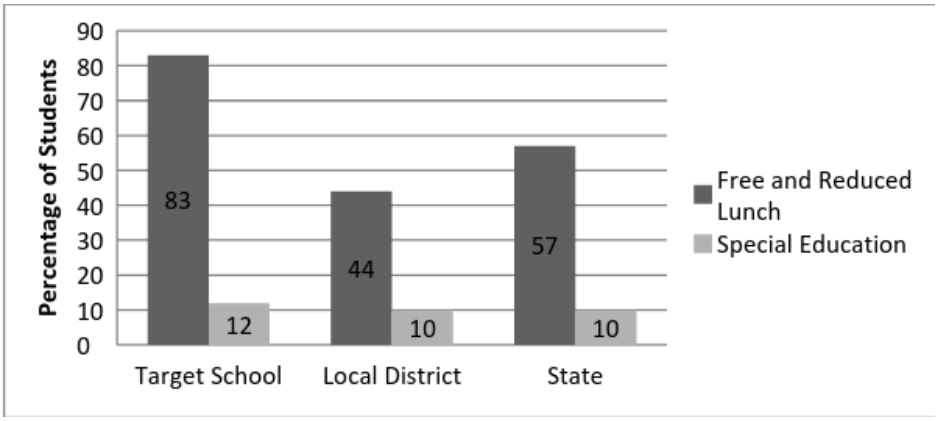

Figure 3. Local and state comparisons of target school's free and reduced lunch and special education percentages. Adapted from *2010-2011 Report Card, Xxxx Xxxxx Middle School fall and spring enrollment for three academic years,* by Georgia Office of Student Achievement, 2011.

Under No Child Left Behind (NCLB) legislation, all schools are required to annually achieve adequate yearly progress (2001). In exchange for state designed accountability measures, Georgia received a waiver from No Child Left Behind achievement provisions in March 2012 (Georgia Department of Education, 2012b). In keeping with the requirements of the

waiver, schools in Georgia were also divided into four subtypes based on achievement data: reward schools, priority schools, focus schools, and alert schools. On April 2012, the target school was designated as a focus school due to low achievement data. In May 2013, the school received its first College and Career Ready Performance Index (CCRPI) number of 61.3 out of 110 (Georgia Department of Education, n.d. *a*). The CCRPI is comprised of multiple school variables including school achievement, attendance, graduation rates, and school climate ratings. The target school's current CCRPI index number is 69.6; the score is 4.2 points under the middle school state average, and 3.1 points under the local school district middle school average (Georgia Department of Education, n.d. *a*). The 2011-2012 achievement data for this school shows a 99.8% attendance rate, a 78.4% passing rate for the math portion of the Georgia Criterion-Referenced Competency Test (CRCT), and an over 91% passing rate for the reading and language arts portions of the CRCT (Georgia Department of Education, 2011b). Performance on the science and social studies portions of the CRCT are 66.4% and 59.2%, respectively. The target school did not make AYP during the last AYP reporting year in Georgia, 2010-2011 (Georgia Department of Education, 2011b).

Instrumentation

The relationship between teacher beliefs about their interactions with students and their students' academic gains was investigated with the use of inventories and data accessed from the state longitudinal data system. The following instruments were used to answer the research questions.

Problems in Schools Questionnaire (PIS). The Problems in Schools Questionnaire (PIS) was used to measure teacher perceptions of fostering student autonomy in teacher-student relationships (Deci et al., 1981). In operation over the last 40 years, this questionnaire was

developed, in part, by the originators of self-determination theory to assist teachers and adults in determining their own autonomy supporting and controlling behavior orientation toward children (Deci et al., 1981; Flink et al., 1990; Reeve, Bolt, & Cai, 1999; Robertson, 2010; Zhou et al., 2012). The 32-item questionnaire takes about eight to ten minutes to complete and consists of eight vignettes with four responses to each vignette. Questionnaire respondents rate the suitability of the four listed responses on a 7-point Likert scale from "1-Very Inappropriate" to "7-Very Appropriate" along a continuum of four subscales: highly controlling, moderately controlling, moderately autonomy supportive, and highly autonomy supportive. Subscale scores are obtained by averaging participants' eight responses to each of the scaled items. Initially overall scores were obtained by using subscale scores in the following formula 2(HA) +MA-MC-2 (HC). In a validity study of the PIS Reeve et al. (1999) found predictive validity for the general scale and construct validity for the highly controlling, moderately controlling, and highly autonomy supportive subscales. Since the moderately autonomy supportive subscale did not seem to measure its intended construct, overall score computation was changed to 2(HA) + 0(MA) - MC- 2(HC). Overall scores range from 18 to -18. Scores on the negative end of the scale represent more controlling beliefs and those which are positive represent more autonomy supportive beliefs. Validity was calculated for each subscale among elementary, middle school, high school, and adult education populations. The respective Cronbach alphas are highly controlling .79, moderately controlling .77, moderately autonomy supportive .78, and highly autonomy supportive .68 (Reeve et al., 1999). The researcher secured permission to use the Problems in Schools Questionnaire in the current work (Appendix E).

Teacher Responsibility Scale. The Teacher Responsibility Scale was used to measure teacher sense of responsibility for teacher-student relationships (Lauermann, 2013). This scale

was constructed utilizing Lauermann and Karabenick's (2011) multivariate understanding of teacher sense of responsibility. Though this scale was recently constructed, it has already been broadly used (Aliakbari et al., 2013; Lauermann & Karabenick, 2013; Matteucci & Kopp, 2013). The Teacher Responsibility Scale is comprised of 12 items organized among four subscales: responsibility for student motivation, responsibility for student achievement, responsibility for relationships, and responsibility for teaching (Lauermann & Karabenick, 2013). Confirmatory factor analysis show that the four subscales were a good fit to the validation study data, $\chi 2$ (48, N = 412) = 106.48, CFI = .98, TLI = .97, RMSEA = .05, SRMR = .03. Internal reliability for each subscale was calculated as following the Cronbach alpha: responsibility for student motivation .88, responsibility for student achievement .86, responsibility for relationships .87, and responsibility for teaching .87. The responsibility for relationships subscale, which consists of three items, was used to assess teacher sense of responsibility for positive teacher-student relationships, and only took two to three minutes to complete. Participants responded to questions like, "I would feel personally responsible if a student of mine did not believe that I truly cared about him/her" on a 7-point Likert scale ranging from 0 (not at all responsible) to 7 (completely responsible). This scale was normed for K-12 educators. The researcher received permission to use the scale in the current work (Appendix F).

CRCT-teacher growth percentile medians. Student achievement gains, reflected as teacher growth percentile medians, were measured by the Georgia Criterion-Referenced Competency Test (CRCT). Each year Georgia middle school students were administered the CRCT in reading, language arts, math, science, and social studies. These tests were used to assess student overall performance, as criteria for matriculation to high school, for computation in accountability systems, and as an indicator to predict high school graduation (Georgia

Department of Education, 2013a, 2013b). The CRCT was replaced by the Georgia Milestone End of Grade test in the 2014-2015 school year (Beaudette, 2014). Similar to the Georgia Criterion-Referenced Competency Test, the Georgia Milestone End of Grade Test system gauges student acquisition of grade level content knowledge in social studies, mathematics, language arts, and science, at the end of third through eighth grades (Georgia Department of Education, 2015a). However, due to the initial administration in the first year and computer concerns during the second year, data from the 2014-2015 and 2015-2016 test administrations have not been used for making student grade retention and promotion decisions (Georgia Department of Education, 2016a). Currently, the 2014-2015 Georgia Criterion-Referenced Competency Test represents the most reliable statewide student achievement data to be utilized in this study.

Initially introduced by Betebenner (2011), growth percentiles are used by a variety of school systems to determine individual student growth as compared to students with similar prior academic performance on standardized assessments, as well as determine teacher effectiveness in instruction. Individual student growth percentiles, according to the Georgia Student Growth Model, consist of regression-based calculations. Students are grouped with others who performed similarly on the last two prior years of standardized assessments and then their performance on a current standardized assessment is ranked according to the same grouping (Georgia Department of Education, 2015c). Student growth percentiles can be combined in order to judge groups of student growth, via median student growth percentile determination, mean student growth percentile calculation, and by categorizing percentiles within the ranges of low to high growth (Georgia Department of Education, 2015c). Median student growth percentiles represent the middle percentile rank in chronological array of other student percentile ranks, within a given group, i.e. class, school, district, etc. Mean student growth percentiles

illustrate an average of individual student growth percentiles within a given group, i.e. class, school, district, etc. Growth percentiles can be categorized into three levels. Percentiles ranging from 1-34 represent low growth, these students are predicted to have difficulty in maintain or improving current academic performance. Percentiles ranging from 35- 65 represent typical growth, these students are expected to continue or improve in their academic performance. Lastly, percentiles that are 66 and above indicate high growth, students in this level are expected to continue high academic performance. Similar to student median growth percentiles, teacher growth percentile medians represent the middle percentile rank in chronological array of other student percentile ranks, which are instructed by a particular teacher. As compared to mean growth percentiles and raw standardized test scores, growth percentile medians are shown to be less affected by score outliers and actual number of scores when assessing student growth performance on standardized measures (Bilello-Diaz & Briggs, 2014).

Median student growth percentiles for the 2013-2014 school year are based on the Georgia Criterion Referenced Competency Test (CRCT) and were calculated for each subject test, reading, science, math, social studies, and English. Published 2013-2014, Georgia CRCT growth percentile medians for subject test are as followed: reading 57, science 51, math 47, social studies 49, and English 49 (Georgia Department of Education, 2014b). Growth percentile medians for the target school for the 2013-2014 school- year were, reading 57, science 58, math 37, social studies 38, and English 44 (Georgia Department of Education, 2014b).

Growth percentiles are descriptive measures (Ouma, 2014). This study utilized student percentile data for teacher's overall student growth for the 2013-2014 to quantify student academic gain. Target school growth percentile data is available through an open access

database accessible to all faculty at the target school. At least twelve other states throughout the United States utilize this method to gage student achievement (Wenning, 2011).

Procedures

Permission was obtained from the target school to perform the proposed research (Appendix D). The researcher presented and successfully defended a proposal for the current study. Subsequently, the Liberty University Institutional Review Board (IRB) reviewed and approved the proposal according to IRB regulations which ensure ethical and rigorous research (Appendix G). Upon IRB approval, teachers were solicited for participation in the study via email with a url link to a research participation consent form, a demographic data form, the Teacher Responsibility Scale, and the Problems in Schools Questionnaire (Appendix H).

The consent form outlined the purpose, procedure, benefits, and risks associated with participation in this study, researcher contact information, and confidentiality measures. Participants were advised that information gathered during the study would not be shared with staff at the target school or used for any purposes other than the current project. Teachers were also advised that if they did not fill out the survey forms or chose to leave the study prior to completion, they would not experience adverse consequences perpetrated by the researcher or any staff at the target school. Teachers were able to halt participation in the study for any reason and at any time during the project. All of these provisions were communicated on the consent form before and after participants completed surveys.

Participants were asked to provide demographic information of gender, race, years of teaching experience, grade level, and identifying information which was used by the researcher to locate CRCT growth model percentile information for participants' 2013-2014 class periods. This information was found in the school system's Statewide Longitudinal Data System (SLDS).

The researcher was an employee at the target school and had access to the SLDS which housed CRCT growth model percentile information from the last five CRCT administrations. All faculty members at the target school and select employees at the target school Board of Education have access to this database. The researcher solicited present and past, English, math, science, social studies, and reading teachers who taught at the target school during the 2013-2014 CRCT administrations. Possible participants were solicited until the sample size yielded a large effect: between 30 and 42 participants as recommend for research containing two to five predictors (Cohen, 1992).

After the collection of demographic and survey information, data with participant's corresponding CRCT growth model percentile data was paired with the survey data. Subsequently, participant survey responses were stripped of identifying information, coded, and loaded into the SPSS statistics program for statistical analysis. Teacher identifying information was destroyed after survey responses and class period growth model percentile information were matched. Research data was securely stored and only accessed by the researcher. A digital and hard copy of the research will be kept for three years. The hard copy is housed in a locked fireproof container. All data will be either shredded or deleted at the end of the three years. The data does not contain identifying personal information.

Data Analysis

Out of the 65 teachers who were solicited, 51 teachers completed surveys. This yielded a 78% response rate for this study. Of the 51 returned surveys, 43 surveys were fully completed and utilized for data analysis. Data for teacher support of student autonomy and sense of responsibility were tabulated. Correlation coefficient values were calculated using the Pearson product moment correlation coefficient method (Pearson *r*) for possible relationships between

teacher valuations of support of student autonomy, sense of responsibility for teacher-student relationships, overall and teacher growth percentiles (Ary et al., 2006). Converted scores were then graphed as a scatter plot to illustrate possible relationships. The relationship between teacher support for autonomy and teacher sense of responsibility for teacher-student relationships were then evaluated. However, since no significant correlations were found, teacher support for autonomy and growth percentiles, and teacher sense responsibility and growth percentiles were not calculated through the multiple regressions with their strength evaluated via a bivariate correlation analysis though standard deviations, means, and correlations were evaluated for autonomy, relatedness, competence, value autonomy, value relatedness, value competence, percentile growths, responsibility for teacher-student relationship variables, and teacher demographic variables.

CHAPTER FOUR: FINDINGS

Overview

This quantitative inquiry focused on the relationship between teacher support of student autonomy, teacher sense of responsibility for fostering teacher-student relationships and academic gains on the 2013-2014 CRCT. Toward the aim of uncovering these relationships between teacher beliefs and student academic gains, a survey was used to explore how teachers felt about student autonomy and fostering relationships. The research instruments used for this study were merged together to form one online survey consisting of demographic data, the responsibility for relationships subscale of the Teacher Responsibility Scale (TRS; Lauermann, 2013), and the Problem in Schools Questionnaire (PIS; Deci, et al,, 1981). Teacher survey results were then compared to the performance of their students on the 2013-2014 CRCT. A correlational research design was used to examine possible relationships. The following chapter describes population demographics, hypothesis testing, and a summary of results. SPSS v24.0 was used to analyze the collected data.

Research Questions

RQ1: Is there a correlation between middle school teacher support for autonomy, as measured by the Problems in Schools Questionnaire (PIS), and teacher sense of responsibility for positive teacher-student relationships, as measured by the Teacher Responsibility Scale (TRS)?

RQ2: Is there a correlation between teacher support for autonomy, as measured by the Problems in Schools Questionnaire (PIS), and teacher growth percentile medians reflecting student achievement gains, measured by the Georgia middle school Criterion-Referenced Competency Test (CRCT)?

RQ3: Is there a correlation between teacher sense of responsibility for positive teacher-student relationships, as measured by the Teacher Responsibility Scale (TRS), and teacher growth percentile medians reflecting student achievement gains, measured by the Georgia middle school Criterion-Referenced Competency Test?

Null Hypotheses

H_o1: There is no significant correlation between teacher support for student autonomy scores on the Problems in Schools Questionnaire (PIS) and teacher sense of responsibility for student interaction scores on the Teacher Responsibility Scale (TRS).

H_o2: There is no significant correlation between teacher support for student autonomy scores on the Problems in Schools Questionnaire (PIS) and teacher growth percentile medians reflecting student achievement gains on the 2013-2014 Georgia middle school Criterion-Referenced Competency Test (CRCT).

H_o3: There is no significant correlation between teacher sense of responsibility for student interaction scores on the Teacher Responsibility Scale (TRS) and teacher growth percentile medians reflecting student achievement gains on the 2013-2014 Georgia middle school Criterion-Referenced Competency Test (CRCT).

Descriptive Statistics

Through coordinated efforts with the principal of the target school, surveys were distributed in March of 2016 via email to 65 teachers who worked at the target school during the 2013-2014 school-year. The email instructed teachers to follow an embedded link to the survey at which they were asked to complete the survey. Along with the original email, two additional follow up emails were sent to prospective participants.

Mean Problems in Schools (PIS) scores for this study were 5.44 for the HA scale, 4.55 for the MA scale, 4.91 for the MC scale, 4.34 for the HC scale and 1.84 for the overall PIS score. The overall PIS score range was between -8.37 and 7.45. Presently, there are no available descriptors for PIS score ranges. However, in Reeve et al.'s (1999) validation study, the mean overall PIS score of 1.89 was depicted as indicating a somewhat autonomy supportive population. The current study's overall PIS mean score of 1.84 (*SD* = 2.7), being within one standard deviation of the Reeve et al. (1999) study also indicates a somewhat autonomy supportive teacher population.

Teacher score ranges on the Teacher Responsibility Scale (TRS) for the responsibility for relationships with students subscale were between 0 and 6. The mean score was 4.54 with a standard deviation of 1.40. The mean score indicates that teachers judged themselves to be somewhat responsible for fostering relationships with their students. Teacher growth percentile medians for the current study were reading 54, science 61, math 40, social studies 46, and English 40. State, target school, and current study teacher median student growth percentiles all indicate typical student growth in each subject area.

Respondent Demographics

The data set was comprised of survey information from 43 teachers. As shown in Table 1, there were 33 females and 10 males with females comprising of 76.7% of the respondent sample. At 88.4 % (*n* = 38), a majority of the respondents identified themselves as African American. A little under 60 % (*n* = 26) of the population reported 11 or more years of teaching experience. Finally, teacher grade levels taught in 2013-2014 were reported as 41.9% (*n* = 18) for sixth grade, 27.9 % (*n* = 12) for seventh grade, and 25.6% (*n* = 11) for eighth grade. There

were two (4.7%) teachers who reported teaching multiple middle school grade levels during the 2013-2014 school year.

Table 1

Participant Demographics

Demographic Variable		Frequency	Percent
Gender	Male	10	23.3
	Female	33	76.7
	Total	43	100.0
Race	Black	38	88.4
	White	3	7.0
	Hispanic/Latino	2	4.7
	Total	43	100.0
Grade Level Taught	6th Grade	18	41.9
	7th Grade	12	27.9
	8th Grade	11	25.6
	Multiple Grades	2	4.7
	Total	43	100.0
Teaching Experience	1-10 years	17	39.5
	11-20 years	21	48.8
	21-30 years	4	9.3
	Over 30 years	1	2.3
	Total	43	100.0

Results

Research Question 1

H_o1_1: There is no significant correlation between middle school teacher support for autonomy and teacher sense of responsibility for positive teacher-student relationships.

A Pearson correlation was run in SPSS between teachers' beliefs about student autonomy and their beliefs about fostering positive teacher-student relationships. Beliefs about student autonomy data were calculated utilizing overall PIS scores and scores from all four PIS subscales. Data analysis was conducted on the total participant population and also within groupings according to subjects taught. As depicted in Table 2, significant results were found between overall PIS scores and subscale PIS scores for the total participant population. The strongest relationship was between the HA and MA scales, $r = .772$, $p < .01$. Teachers who reported beliefs categorized as highly autonomous were also likely to report moderately autonomous beliefs. These results seem to indicate that the MA scale reflects highly autonomous beliefs. In addition, overall PIS scores were positively related to HA scale, $r = .698$, $p < .01$. This finding is intuitive; teachers with higher overall PIS scores are categorized as reporting more autonomy supportive beliefs.

Table 2

Teacher Growth Percentile, Teacher Responsibility Scale, Problems in Schools Overall Score and Subscale Score Correlations

	Med_GP	TRS	PIS	MC	HA	HC
TRS	0.027					
PIS	0.053	0.048				
MC	0.214	-0.139	0.049			
HA	0.114	-0.034	0.698**	0.606**		
HC	0.005	-0.064	-0.391**	0.478**	0.345*	
MA	0.180	0.004	0.448**	0.601**	0.772**	0.343*

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

There were no significant findings between the TRS scores and overall PIS scores or subscale PIS scores for the total participant population. However, among English teachers there seemed to be a weak negative relationship between overall PIS scores and TRS scores, r = -.424, p = .193). English teachers who reported ascribing to more controlling beliefs also reported a greater sense of responsibility for fostering positive teacher-student relationships. Therefore, the null hypothesis was not rejected due to the nonlinear nature of the relationship, as seen in Figure 4. This study did not indicate a correlation between teachers' beliefs about support for student autonomy and their sense of responsibility in for fostering positive teacher-student relationships.

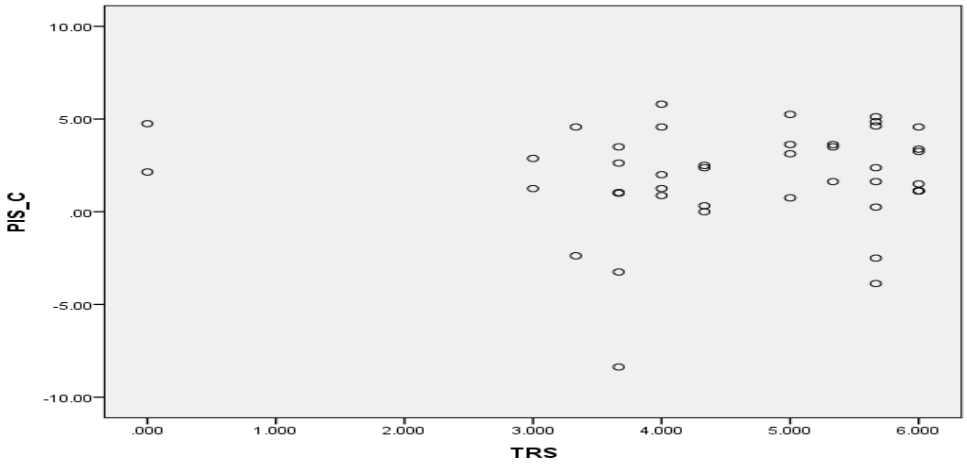

Figure 4. Scatter plot of PIS and TRS correlation.

Research Question 2

H_o2_1: There is no significant correlation between teacher support for autonomy and teacher growth percentile medians reflecting student achievement gains on the Georgia middle school Criterion-Referenced Competency Test (CRCT).

Due to the categorical nature of the Teacher Growth Percentile Median, a Spearman rho correlation was run to determine a possible relationship between teachers' beliefs about student

autonomy and academic achievement of their students as measured by teacher growth percentile medians for the 2013-2014 CRCT (Fink, 2006). Beliefs about student autonomy data were analyzed using overall PIS scores and scores from all four PIS subscales. The correlation value reflected a trace of a weak correlation and the P value gave indication that the null hypothesis could be rejected, $r = .269$, degrees of freedom= 41, $P = .058$ (Fink, 2006). However, a scatter plot did not reveal a linear relationship. In addition, a Pearson correlation was run in SPSS with the same variables and revealed insignificant results as shown in Table 2. No significant relationships were found between teachers' beliefs about student autonomy and academic achievement of their students on the 2013-2014 CRCT as depicted in Figure 5. Therefore, the null hypothesis was not rejected.

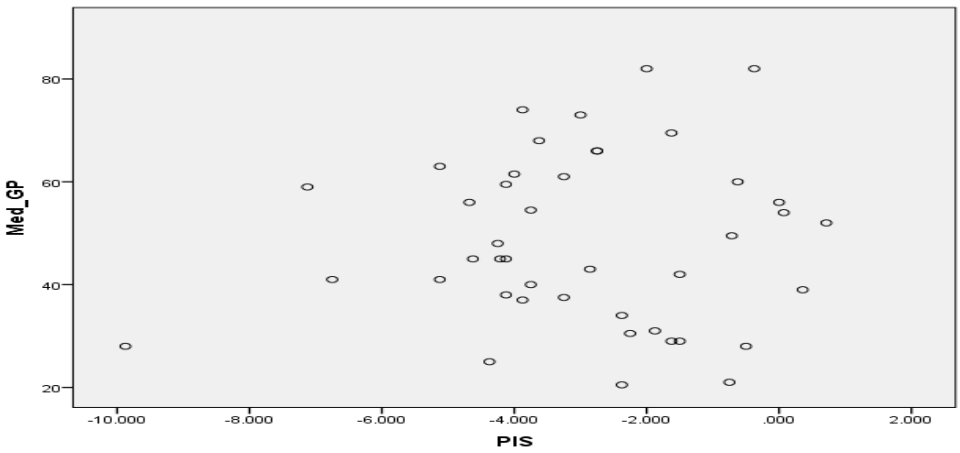

Figure 5. Scatter plot of teacher growth percentile median and PIS correlation.

Research Question 3

H_o3_1: There is no significant correlation between teacher sense of responsibility for positive teacher-student relationships and teacher growth percentile medians reflecting student

achievement gains on the Georgia middle school Criterion-Referenced Competency Test (CRCT).

A Spearman rank-order correlation (rho) was run to determine any relationship between teacher beliefs about their responsibility for fostering student relationships and their student academic achievement on the 2013-2014 CRCT. No significant results were indicated. Therefore, the null hypothesis was not rejected. The study found no correlation between student academic gains as measured by teacher growth percentile medians on the 2013-2014 CRCT and teacher sense of responsibility for encouraging positive teacher-student relationships.

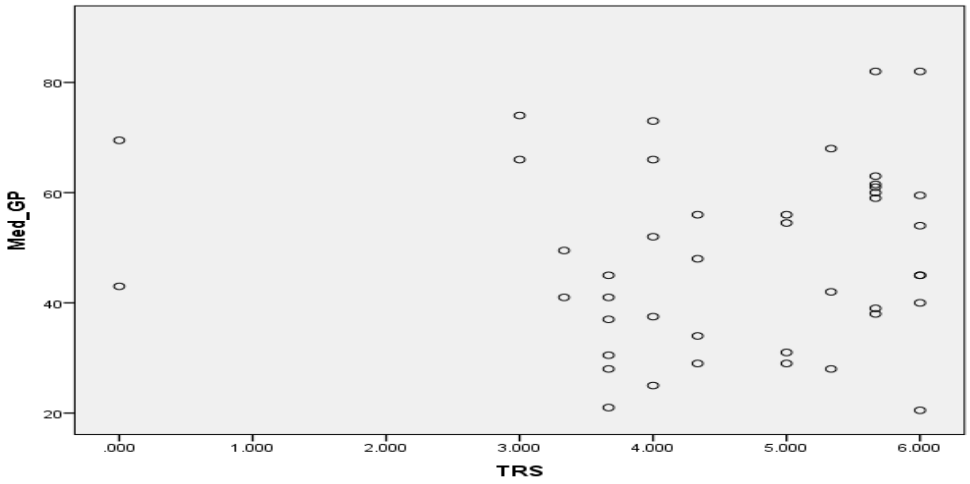

Figure 6. Scatter plot of teacher growth percentile median and TRS correlation.

After data were analyzed against each hypothesis, overall conclusions and implications concerning teachers' beliefs about student interactions and their students' standardized test achievements were considered.

CHAPTER FIVE: CONCLUSIONS

This chapter provides a discussion of findings and their implications as related to the research questions. Included in this chapter are an overview, a summary of findings, implications, and recommendations for future research.

Overview

As the nation pursues education reform aimed at the improvement of academic success, states are increasingly turning to teacher pay for student performance on standardized assessments as a way to facilitate the initiative. According to self-determination theory, teachers who feel pressured to increase student academic performance are more controlling in their interactions and often net losses in student achievement (Deci et al., 1981). More controlling behaviors are in direct opposition to teacher-student relationship research which links autonomy supportive positive teacher-student relationships with increased academic achievement, particularly among at-risk students (Murray & Zvoch, 2011). As school systems employ teacher pay for performance systems, teachers' beliefs about behaviors which foster positive teacher-student relationships and their role in cultivating such relationships need to be assessed (McGrath & Van Bergen, 2015). The purpose of this correlation study was to evaluate self-determination theory's links between teachers' ascription to autonomous or controlling behaviors and student achievement. Teachers at a target school were administered a survey which assessed their beliefs about student autonomy and their responsibility for fostering teacher-student relationships, and then compared to their students' achievement on the 2013-2014 CRCT. This project aimed to answer the following questions:

RQ1: Is there a correlation between middle school teacher support for autonomy, as measured by the Problems in Schools Questionnaire (PIS), and teacher sense of responsibility for positive teacher-student relationships, as measured by the Teacher Responsibility Scale (TRS)?

RQ2: Is there a correlation between teacher support for autonomy, as measured by the Problems in Schools Questionnaire (PIS), and teacher growth percentile medians reflecting student achievement gains on the Georgia middle school Criterion-Referenced Competency Test (CRCT)?

RQ3: Is there a correlation between teacher sense of responsibility for positive teacher-student relationships, as measured by the Teacher Responsibility Scale (TRS), and teacher growth percentile medians reflecting student achievement gains on the Georgia middle school Criterion-Referenced Competency Test?

Discussion

Hypothesis 1

Hypothesis 1 stated that middle school teachers' support for autonomy had no significant correlation with their sense of responsibility for fostering positive teacher-student relationships. Generally, sample participants were found to be somewhat autonomy supportive; this finding corresponds with previous studies (Reeve et al., 1991). Initial inferential results indicated a negative relationship between teachers' beliefs about supporting student autonomy and fostering teacher-student relationships among English teachers (r = -.424). According to this weak correlation, English teachers who reported more controlling beliefs about interactions with students also indicated a greater sense of responsibility for cultivating those relationships. This slight finding is similar to previous research which connects increased sense of teacher responsibility for student achievement and more controlling interactions (Deci et al., 1991).

Increased sense of responsibility for responsibility for teacher-student relationships has been hypothesized, in the literature, to be linked with more student autonomy supportive teacher beliefs (Davis, 2003). However as stated earlier, the correlation between these variables was very weak and later determined to be non-linear. Overall and subscale teacher support for student autonomy beliefs did not demonstrate a relationship to teacher beliefs about their responsibility for fostering positive teacher student relationships. This research represents the first which attempts to find correlation between teacher beliefs about their responsibility for teacher-student relationships and their ascription to controlling or autonomy supportive behaviors with students. The null hypothesis was accepted in this study. Previous studies which connect teacher inclination toward controlling or non-controlling behaviors and teaching students who are less motivated to academically achieve and/or school pressures to increase achievement, remain as the primary links to teacher belief regarding the support or non support of student autonomy (Robertson, 2010; Taylor et. al 2008).

Hypothesis 2

Hypothesis 2 stated that teacher support for student autonomy was not related to academic performance of their students on the 2013- 2014 Georgia Criterion-Referenced Competency Test (CRCT). Overall and subscale inventory results for teacher beliefs about student autonomy were not found to be related to the academic performance of their students on the 2013-2014 CRCT. These findings are in direct opposition to self-determination research which links teacher autonomy supportive beliefs to increased academic achievement and more controlling beliefs with lower academic achievement (Deci et al., 1981; Fink, 2006). These findings may reflect, in part, a sample which did not yield much diversity in data responses. A study which explored pre-service kindergarten teacher beliefs and intentions about interactions

with students attributed similar results to the homogeneous characteristic of the sample (Sakellariou & Rentzou, 2012). With a Problems in School (PIS) survey score range of -8.37 to 7.45 out of a possible range of -18 to 18 and average PIS score of 1.84, this study's sample did not yield much variability though the sample was found to be somewhat autonomy supportive. In addition, teacher growth percentile medians which ranged from 0 - 99, with typical growth falling between 35 and 65, all also reflect typical overall and subject area growth for this study. As with Sakellariou and Rentzou's (2012) study, average data points across multiple variables may be more indicative of the homogeneity of the study population.

Hypothesis 3

Hypothesis 3 indicted that teacher beliefs about their responsibility for fostering teacher-student relationships were not related to their students' performance on the 2013-2014 CRCT. Results indicated that teacher sense of responsibility for nurturing positive teacher-student relationships is not correlated with the academic achievement of their students on the 2013-2014 CRCT. However, teachers in this study reported a sense of responsibility for fostering positive teacher-student relationships. This finding represents new information for the literature. Prior studies on teacher responsibility beliefs examined teacher sense of responsibility in relation to student academic success, student academic failure, and general responsibilities in education (Akbaba Altun, 2009; Aktas et al., 2013). Teachers are more likely to feel responsible when students perform well as opposed to poor student performance (Guskey, 1981; Kurt, 2013). In a quantitative responsibility study which explored responsibility beliefs of parents, students, and teachers, students and parents overwhelmingly reported that they believed it was the teacher's responsibility to cultivate positive teacher-student relationships (Helker & Wosnitza, 2014). Conversely, teachers' responsibility beliefs focused on their duty for enhancing all of their

students' learning. The findings of this study broaden teacher sense of responsibility beliefs from strictly academic pursuits to the interpersonal realm of the classroom.

Implications

Correlations were not found between teacher beliefs about supporting student autonomy, fostering positive teacher-student relationships, or the academic performance of their students on the 2013-2014 CRCT. However, results indicated that middle school teachers of students defined as at-risk due to African American racial status, participation in the free and reduced lunch program, and poor previous school performance, do support student autonomy and believe that they have a responsibility to foster positive relationships with students.

Support for Student Autonomy

Autonomy supportive teachers motivate their students to learn through the use of intrinsic motivation; these teachers look for ways to connect learning to things and ideals that are important to their students (Jang et al., 2010). This type of motivation incorporates the student perspective, relies on non-controlling language, and fosters positive teacher-student relationships (Roth & Weinstock, 2013). Though the literature indicates that at-risk students are least likely to enjoy such interactions, this work found that teachers of at-risk students espouse beliefs which are supportive of student autonomy (Hamre & Pianta, 2001; Hill et al., 2004). Results of this study are informative to the literature regarding the beliefs of teachers who serve at-risk students. Belief evaluations of a predominantly non-White teacher population who work with at-risk students are rarely found in the literature (McGrath & Van Bergen, 2015; Spilt et al., 2011). The findings of this study are important to families and communities characterized as at-risk. Though the literature shows that at-risk students are less likely to have relationships with teachers which are characterized as autonomy supportive, this study indicates teachers of at-risk

students do believe autonomy supportive interactions are the best way to interact with students (Roorda et al., 2011). This knowledge has the potential to offset strained relationships between at-risk communities and schools (Harris & Goodall, 2008). In addition, this study's results are consequential to local and collegiate educational leaders. The findings can be used to inform professional development and college courses which help educators hone in on strategies to help form and maintain autonomy supportive interactions with students (Karabenick & Conley, 2011). Finally, this study's outcomes are important to federal educational leaders. The sample population utilized in this study did not waiver in their support for student autonomy. However, the pay for performance initiative was not in place at the time data was collected. The results of this project can serve as a baseline for teachers who work with at-risk students; as pay for performance initiatives are fully integrated lawmakers and researchers may need to revisit teacher beliefs about supporting autonomy (Farrelly, 2013). Anything less than teacher support for student autonomy will represent a deviation from this study's findings.

Responsibility for Fostering Teacher-Student Relationships

The concept of teacher sense of responsibility has evolved throughout the last few decades from a convoluted ideology which included locus of control and efficacy (Bandura, 1986; Soisson, 2013). Most recently teacher sense of responsibility has been honed to a concept which encapsulates teacher sense of responsibility for student academics, motivation, teaching, and positive relationships with students (Lauermann, 2013). Few studies have focused on teacher sense of responsibility for teacher student responsibility (Onosko, 2011). One of this study's primary implications is that it adds definitive information to the literature about teachers' sense of responsibility for teacher-student relationships. Prior studies have offered anecdotal evidence of teacher sense of responsibility. Though at the time of this study, pay for

performance initiatives were not fully integrated at the site school, findings indicate that teachers of at-risk middle school students value the importance of fostering teacher-student relationships despite mounting accountability pressures. Similar to teacher support for student autonomy, the findings of this study can be used as a baseline for teachers who work with at-risk students; as pay for performance initiatives are fully integrated (Farrelly, 2013). This finding is also important due to school level and the at-risk status of students served by the sample population. Previous studies have found that teacher-student relationships are characterized as less positive as students move from elementary school to middle school and from middle school to high school (Murray & Zvoch, 2011). In addition, teacher-student relationships in urban schools are often characterized as less caring and supportive (Spilt & Oort, 2011). This study shows that positive teacher-student relationships are important to middle school teachers, who also work with at-risk students. However as noted prior, teacher sentiment of responsibility for positive teacher-student relationship seems to be less perceived as students matriculate to middle and high schools and among at-risk students (Murray & Zvoch, 2011; Split & Oort, 2011). The information obtained by this study can be used by professional development and teacher educator programs to assist teachers in learning how to adequately convey their sense of responsibility for teacher-student relationships. Teacher ability to convey some sense of responsibility for positive teacher-student relationships is important for building positive relationships with students (Hatfield et al., 2012).

Limitations

Though this project was able to evaluate relationships between teacher beliefs regarding interactions with students and the academic performance of their students on standardized assessments, the following limitations impacted the ability to generalize its results: sample size,

sample diversity, and real-time test and teacher data. The sample population included data results from 43 teachers. While the sample size is within the limits of recommended sample sizes for studies involving two to five predictors, the results found among such a small sample make it difficult to associate findings to the overall middle school teacher population (Cohen, 1992). Secondly, the sample population featured teachers from one target school. The target school was chosen for the large concentration of students who are classified as at-risk due to participation in the free and reduced lunch program and the racial composition classified as non-White. However, this study's results depicting the beliefs of teachers of at-risk students at one middle school are also difficult to generalize to the full population of middle school teachers who teach at-risk students. In addition, a sample which included teachers of students who are not considered at-risk would have been helpful to isolate teacher beliefs according to student at-risk status and also generalizability to the middle school teacher population. Another limitation of this study was the lack of real-time connection between the measurement of teacher beliefs and their students standardized test results. The 2013-2014 CRCT growth percentile medians were utilized in this project because they represented the most reliable standardized data available for the target population and also they are a measure that accountability initiatives use to determine teacher effectiveness. In the 2014-2015 school year, the standardized assessment was changed from the CRCT to the Georgia Milestone End of Grade test (Beaudette, 2014). Though this assessment has been administered during the 2014-2015 and 2015-2016 school years, the scores have not been considered reliable enough to utilize in promotion decisions due the need to evaluate and establish cutoff scores during the first administration year and mass computer glitches during the second administration year (Georgia Department of Education, 2016a). Teacher belief data was collected in the spring of 2016 and compared to test data from the spring

of 2014. Though belief studies show that teacher beliefs are often stable over time, even within a two year time period as mimicked by this study, it is difficult to generalize findings to current teacher beliefs and the new standardized measurement (Fives & Buehl, 2008; Sakellariou & Rentzou, 2012). Therefore, it is recommended that once promotion and retention decisions can be made based on reliable Milestone End of Grade test results, this study should be replicated to include a larger sample size consisting of at-risk and non at-risk students.

Recommendation for Future Research

Teachers often enter the field of education to make a difference in the lives of their students (Rochkind, Ott, Immerwahr, Doble & Johnson, 2008). Included in that endeavor are relationships which facilitate learning. Among at-risk student populations these relationships are even more necessary to reach academic success (Soto, 2011). This study sought to uncover links between teachers' beliefs about their interactions with students and their students' academic performance. Though no significant relationships were found, this study did find that teachers of at-risk students do value teacher-student relationships and endeavor to promote positive teacher-student relationships with students. However, in McGrath & Van Bergen's (2015) literature review, it was determined that students' likelihood of experiencing negative interactions with teachers increased with the number of at-risk factors that affected the individual student. The present study did not quantify specific risk factors for individual students included in teacher growth percentile medians. Due to the negative relationship between the number of student at-risk factors and the likelihood of relationship quality, it is recommended that future work quantify individual student at-risk factors.

This study did not reveal any significant relationships between teacher sense of responsibility, teacher support for student autonomy, and the academic performance of their

students. Results did show that teachers in the sample population felt a sense of responsibility for positive teacher-student relationships and somewhat supported student autonomy. Teacher sense of autonomy has been found linked to teacher support for student autonomy (Pelletier & Sharp, 2009; Zhang et al., 2012). Since this study did not focus on teacher sense of personal autonomy, it is difficult to ascertain if the current sample population reported feeling a sense of responsibility for teacher-student relationships and support for student autonomy as a reflection of their sense of autonomy. As accountability measures which tie teacher pay to student performance become a reality, teacher sense of autonomy may be affected. It is recommended that future studies expand this study's model to include teacher belief about their own autonomy in relation to student academic achievement and teacher beliefs about their interaction with students.

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Appendix A: Georgia Elementary and Middle School CRCT Performance Targets for CCRPI Based on 2011 Elementary and Middle CRCT Proficiency Rates

CCRPI Level	Statewide Assessment	Student Group	2011 Proficiency Rate	2012 Performance Target	2013 Performance Target	2014 Performance Target	2015 Performance Target	2016 Performance Target	2017 Performance Target
Elementary/ Middle	English/ Language Arts	**State Target/All Students**	**90.7**	**91.5**	**92.3**	**93**	**93.8**	**94.6**	**95.4**
		Asian/Pacific Islander	94.7	95.1	95.6	96	96.5	96.9	97.4
		Black	86.5	87.6	88.8	89.9	91	92.1	93.3
		Hispanic	89.5	90.4	91.3	92.1	93	93.9	94.8
		Alaskan/American Indian	91.5	92.2	92.9	93.6	94.3	95	95.8
		White	94.2	94.7	95.2	95.7	96.1	96.6	97.1
		Multi-Racial	93.3	93.9	94.4	95	95.5	96.1	96.7
		Students with Disabilities	70.7	73.1	75.6	78	80.5	82.9	85.4
		English Learners	80.9	82.5	84.1	85.7	87.3	88.9	90.5
		Economically Disadvantaged	86.8	87.9	89	90.1	91.2	92.3	93.4
Elementary/ Middle	Mathematics	**State Target/All Students**	**84.1**	**85.4**	**86.8**	**88.1**	**89.4**	**90.7**	**92.1**
		Asian/Pacific Islander	93.5	94	94.6	95.1	95.7	96.2	96.8
		Black	75.8	77.8	79.8	81.9	83.9	85.9	87.9
		Hispanic	83.7	85.1	86.4	87.8	89.1	90.5	91.9
		Alaskan/American Indian	86.7	87.8	88.9	90	91.1	92.2	93.4
		White	90.4	91.2	92	92.8	93.6	94.4	95.2
		Multi-Racial	87.1	88.2	89.3	90.3	91.4	92.5	93.6
		Students with Disabilities	63.8	66.8	69.8	72.9	75.9	78.9	81.9
		English Learners	74.9	77	79.1	81.2	83.3	85.4	87.5
		Economically Disadvantaged	78	79.8	81.7	83.5	85.3	87.2	89
Elementary/ Middle	Reading	**State Target/All Students**	**92.8**	**93.4**	**94**	**94.6**	**95.2**	**95.8**	**96.4**
		Asian/Pacific Islander	95	95.4	95.8	96.3	96.7	97.1	97.5
		Black	88.7	89.6	90.6	91.5	92.5	93.4	94.4
		Hispanic	92	92.7	93.3	94	94.7	95.3	96
		Alaskan/American Indian	94.8	95.2	95.7	96.1	96.5	97	97.4
		White	96.3	96.6	96.9	97.2	97.5	97.8	98.2
		Multi-Racial	95.4	95.8	96.2	96.6	96.9	97.3	97.7
		Students with Disabilities	75.4	77.5	79.5	81.6	83.6	85.7	87.7
		English Learners	84.8	86.1	87.3	88.6	89.9	91.1	92.4
		Economically Disadvantaged	89.6	90.5	91.3	92.2	93.1	93.9	94.8

CCRPI Level	Statewide Assessment	Student Group	2011 Proficiency Rate	2012 Performance Target	2013 Performance Target	2014 Performance Target	2015 Performance Target	2016 Performance Target	2017 Performance Target
Elementary/ Middle	Science	**State Target/All Students**	**76.4**	**78.4**	**80.3**	**82.3**	**84.3**	**86.2**	**88.2**
		Asian/Pacific Islander	88.6	89.6	90.5	91.5	92.4	93.4	94.3
		Black	63.1	66.2	69.3	72.3	75.4	78.5	81.6
		Hispanic	72.9	75.2	77.4	79.7	81.9	84.2	86.5
		Alaskan/American Indian	81.4	83	84.5	86.1	87.6	89.2	90.7
		White	87.2	88.3	89.3	90.4	91.5	92.5	93.6
		Multi-Racial	82	83.5	85	86.5	88	89.5	91
		Students with Disabilities	52.5	56.5	60.4	64.4	68.3	72.3	76.3
		English Learners	61.3	64.5	67.8	71	74.2	77.4	80.7
		Economically Disadvantaged	67.3	70	72.8	75.5	78.2	80.9	83.7
Elementary/ Middle	Social Studies	**State Target/All Students**	**75.1**	**77.2**	**79.3**	**81.3**	**83.4**	**85.5**	**87.6**
		Asian/Pacific Islander	89	89.9	90.8	91.8	92.7	93.6	94.5
		Black	62.8	65.9	69	72.1	75.2	78.3	81.4
		Hispanic	71.2	73.6	76	78.4	80.8	83.2	85.6
		Alaskan/American Indian	78.4	80.2	82	83.8	85.6	87.4	89.2
		White	85.1	86.3	87.6	88.8	90.1	91.3	92.6
		Multi-Racial	80.2	81.9	83.5	85.2	86.8	88.5	90.1
		Students with Disabilities	49.6	53.8	58	62.2	66.4	70.6	74.8
		English Learners	59.3	62.7	66.1	69.5	72.9	76.3	79.7
		Economically Disadvantaged	65.4	68.3	71.2	74.1	76.9	79.8	82.7

(Georgia Department of Education, 2013c)

Appendix B: Georgia Graduation Performance Targets for CCRPI

State Target/All Students	2011 Graduation Rate	2012 Graduation Target	2013 Graduation Target	2014 Graduation Target	2015 Graduation Target	2016 Graduation Target
American Indian / Alaskan	67.8	70.5	73.2	75.9	78.5	81.2
Asian / Pacific Islander	79.1	80.8	82.6	84.3	86.1	87.8
Black	59.8	63.2	66.5	69.9	73.2	76.6
Economically Disadvantaged	59.3	62.7	66.1	69.5	72.9	76.3
English Learners	32	37.7	43.3	49	54.7	60.3
Females	71.8	74.2	76.5	78.9	81.2	83.6
Hispanic	57.6	61.1	64.7	68.2	71.7	75.3
Male	63.3	66.4	69.4	72.5	75.5	78.6
Migrant	50	54.2	58.3	62.5	66.7	70.8
Multi-Racial	69.1	71.7	74.3	76.8	79.4	82
Students with Disabilities	29.8	35.7	41.5	47.4	53.2	59.1
White	75.5	77.5	79.6	81.6	83.7	85.7

(Georgia Department of Education, 2013b)

Appendix C: Georgia Middle School CCRPI Performance Index

CONTENT MASTERY
1. Percent of students scoring at Meets or Exceeds in ELA (required participation rate ≥ 95%) 2. Percent of students scoring at Meets or Exceeds in reading (required participation rate ≥ 95%) 3. Percent of students scoring at Meets or Exceeds in mathematics (required participation rate ≥ 95%) 4. Percent of students scoring at Meets or Exceeds in science (required participation rate ≥ 95%) 5. Percent of students scoring at Meets or Exceeds in social studies (required participation rate ≥ 95%)
POST MIDDLE SCHOOL READINESS
1. Percent of English Learners with positive movement from one Performance Band to a higher Performance Band as measured by the ACCESS for ELLs 2. Percent of Students With Disabilities served in general education environments greater than 80% of the school day 3. Percent of students scoring at Meets or Exceeds on the Grade Eight Writing Assessment (required participation rate ≥ 95%) 4. Percent of students in grade 8 achieving a Lexile measure equal to or greater than 1050 5. Percent of students completing 2 or more state defined career related assessments/inventories and a state defined Individual Graduation Plan by the end of grade 8 6. Student Attendance Rate (%)
PREDICTOR FOR HIGH SCHOOL GRADUATION
1. Percent of students in grade eight passing at least four courses in core content areas (ELA, mathematics, science, social studies) and scoring at Meets or Exceeds on all CRCT and required EOCT 2. Percent of CRCT assessments scoring at the Exceeds level (ELA, reading, mathematics, science, social studies)

(Georgia Department of Education, 2015b)

Appendix D: Request to Participate in Dissertation Research

Naima Williams
[redacted], GA [redacted]

June 16, 2015

[redacted], Principal
[redacted] Middle School
[redacted] Road
[redacted], GA [redacted]

Greetings Dr. [redacted],

I wish to carry out a research project at [redacted] Middle School as part of an education doctoral degree program with Liberty University. I would be grateful for your permission and support. The research focus is teacher beliefs about their interactions with students and the connection to academic gains on the Georgia middle school Criterion-Referenced Competency Test (CRCT).

Teacher beliefs about pedagogy, student ability, school climate and even their own ability to impact students have definite effects on teaching and learning, and ultimately student achievement. What is lesser known is if teacher beliefs about their interactions with students impact student achievement. According to self-determination research, when teachers are compelled to concentrate on student achievement directives there are often adverse effects on their interactions with students. In light of pending teacher pay for student performance on standardized assessment initiatives and the persistence of traditionally negative relationships between teachers and at-risk students, who tend to under-perform on the CRCT, it is important to ascertain if a connection exists between teacher beliefs about their interactions with students and student achievement. The information uncovered in this research will be useful to teacher educators, school leaders and classroom teachers who seek to positively impact student achievement and teacher-student relationships.

Through the use of two survey instruments, I will collect data from teachers about their support and/or non-support for student autonomy and their sense responsibility for positive interactions with students. In addition, participants will be asked for permission to access CRCT growth model information per individual 2013-2014 class periods. Teacher identifying information will be destroyed soon after survey responses and academic gain information are matched and organized according to class subgroups; regular education, talented and gifted (TAG), special education curriculum (SEC), English as a second language (ESOL) and advanced curriculum. All individual information will be kept confidential. Identifying individual and

school information will not be included in the reporting of results. Thank you in advance for your consideration and support of this project.

Sincerely,

Naima Williams

Appendix E: Permission to Use the Problems in Schools Questionnaire (PIS)

On 7/29/13 9:19 AM, "Naima Williams" <[redacted]> wrote:

Naima Williams
[redacted]
[redacted]GA [redacted]

July 28, 2013

Dr. Edward L. Deci, Professor
429 Meliora Hall
Department of Clinical & Social Sciences in Psychology
Box 270266
University of Rochester
Rochester, NY 14627

Dear Dr. Deci,

I am completing a dissertation at Liberty University. The title is Teacher Beliefs About Teacher-Student Interactions and Academic Gains Among Middle School Teachers of At-Risk Students.
I request your permission to use in my dissertation research, your research instrument, and to reproduce that item in an appendix to the dissertation.

The instrument to be used/ reproduced is: the Problems in Schools Questionnaire.

The completed dissertation will be deposited in the university library.
If you are the copyright owner and you grant permission for this use, please sign below and return the letter to me as soon as possible. My fax number is 770-969-[redacted]. By signing this letter, you are confirming that you own (or your company owns) the copyright to the above described material. Thank you very much.

Sincerely,

Naima Williams

I grant my permission to use the material described above.

_____ _____

Name of copyright owner Edward L Deci Date 7-29-13

****

Edward L. Deci
Professor of Psychology and
Helen F. & Fred H. Gowen Professor in the Social Sciences
Department of Psychology
University of Rochester
P.O. Box 270266 (for US mail)
355 Meliora Hall (for couriers)
Rochester, NY 14627
phone: [redacted]
fax: [redacted]
email: [redacted]
website: http://selfdeterminationtheory.org
--

Appendix F: Permission to Use the Teacher Responsibility Scale (TRS)

Dear Naima,

My colleague Stuart Karabenick and I are very glad to give permission for your use of the Teacher Responsibility Scale. Would this email suffice, or would you prefer a signed and scanned copy of the provided form?

Fani--

Fani Lauermann, Ph.D.

Combined Program in Education and Psychology

University of Michigan, SEB 1400C

610 E. University Ave

Ann Arbor, MI 48109-1259

On Mon, Jul 29, 2013 at 9:34 AM, Naima Williams <[redacted]> wrote:

Naima Williams

[redacted], GA [redacted]

July 28, 2013

Dr. Fani V. Lauermann, Student Ambassador
University of Michigan School of Education
610 East University Avenue, Room 1400 C
Ann Arbor, Michigan 48109-1259

Dear Dr. Lauermann,

I am completing a dissertation at Liberty University. The title is Teacher Beliefs About Teacher-Student Interactions and Academic Gains Among Middle School Teachers of At-Risk Students. I request your permission to use in my dissertation research, your research instrument, and to reproduce that item in an appendix to the dissertation.

The instrument to be used/ reproduced is: the Teacher Responsibility Scale.

The completed dissertation will be deposited in the university library. If you are the copyright owner and you grant permission for this use, please sign below and return the letter to me as soon as possible. My fax number is 770-969-[redacted]. By signing this letter, you are confirming that you own (or your company owns) the copyright to the above described material. Thank you very much.

Sincerely,

Naima Williams

I grant my permission to use the material described above.

_____ _____

Name of copyright owner Date

Appendix G: Liberty IRB Approval

The Liberty University
Institutional Review Board
has approved this document for use
from 1/29/16 to 1/28/17
Protocol # 2410.012916

Consent for Participation in Study

The Correlation between Teachers' Sense of Responsibility for Positive Teacher-Student Relationships, Support for Student Autonomy, and Academic Gains of Their At-Risk Students

Naima Williams
Liberty University
School of Education

You are invited to be in a research study of teacher beliefs about interacting with students and its connection to academic gains on the Georgia Middle School Criterion-Referenced Competency Test (CRCT). You were solicited as a possible participant because you were an English, Math, Science, Social Studies and/or Reading teacher at BCMS during the 2013-2014 CRCT administrations. Please read this form before agreeing to be in the study.

This study is being conducted by Naima Williams, a doctoral candidate at Liberty University.

Background Information:
The purpose of this study is to determine (via survey) if a connection exists between teacher beliefs about interacting with students and student achievement among teachers of at-risk middle school students. The findings of this study will inform teacher educators, school leaders and classroom teachers who seek to positively impact student achievement and teacher-student relationships.

Procedures:
If you agree to participate in this study, you will only be asked to answer questions, which follow this form. Questions include demographic data, which will be used by the researcher to access overall CRCT growth model percentile information for each of your 2013-2014 class periods, which is found in the school system's open access GA LDS database. The researcher will only access class level student growth model percentile information. This survey should take approximately 10 minutes to complete.

Risks and Benefits of being in the Study:
There is little risk involved in this study. As a participant, you need only to read and indicate your responses below.

Potential Benefits:
Your responses are important because they may assist educators of at-risk students in the valuing of more positive relationships with students as additional means of increasing student achievement.

Compensation:
Participants will not be compensated for their participation in this survey.

Confidentiality:
All individual information will be kept confidential. Information gathered during this

study will not be shared with staff at BCMS or used for any other purposes other than the current project. Identifying individual and school information will not be included in the reporting of results. Teacher identifying information will be stripped soon after survey responses and class period growth model percentile information are matched. Research information will be securely stored and only accessed by the researcher.

After data analysis, the researcher will retain a digital and hard copy of the research for three years. A hard copy will be housed in a locked fireproof container. All data will be destroyed at the end of three years. The data will not contain identifying personal information.

Voluntary Nature of the Study:
Participation in this study is voluntary. Your decision to participate will not affect your current or future relations with Liberty University and/or BCMS. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts/Questions:
The researchers conducting this study are: Naima Williams and her advisor Dr.Tracy Pritchard. If there are questions or concerns about this survey they may be contacted at namerj@yahoo.com or tbpritchard@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher*(s)*, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Carter 134, Lynchburg, VA 24515 or email at irb@liberty.edu.

ELECTRONIC CONSENT: Please print a copy of this page for your records and select your choice below.

Clicking on the "agree" button below indicates that:

- **you have read the above information**
- **you voluntarily agree to participate**
- **you are at least 18 years of age**

If you do not wish to participate in the research study, please decline participation by clicking on the "disagree" button.

○ **Agree**

○ **Disagree**

Appendix H: Research Participation Consent Form, Demographic Data Form, Teacher Responsibility Scale, and Problems in Schools Questionnaire Found at Url Link

Consent for Participation in Study

The Correlation between Teachers' Sense of Responsibility for Positive Teacher-Student Relationships, Support for Student Autonomy, and Academic Gains of Their At-Risk Students

Naima Williams
Liberty University
Department of Graduate Education

You are invited to be in a research study of teacher beliefs about interacting with students and its connection to academic gains on the Georgia Middle School Criterion-Referenced Competency Test (CRCT). You were solicited as a possible participant because you were an English, Math, Science, Social Studies and/or Reading teacher at BCMS during the 2013-2014 CRCT administrations. Please read this form before agreeing to be in the study.

This study is being conducted by: Naima Williams, Liberty University.

Background Information:
The purpose of this study is to determine (via survey) if a connection exists between teacher beliefs about interacting with students and student achievement among teachers of at-risk middle school students. The findings of this study will inform teacher educators, school leaders and classroom teachers who seek to positively impact student achievement and teacher-student relationships.

Procedures:
If you agree to participate in this study, you will only be asked to answer questions which follow this form. Questions include demographic data which will be used by the researcher to access overall CRCT growth model percentile information for each of your 2013-2014 class periods; which is found in the school system's open access GA LDS database. The researcher will only access class level student growth model percentile information. This survey should take approximately 10 minutes to complete.

Risks and Benefits of being in the Study:
Information gathered during this study will not be shared with staff at BCMS or used for any other purposes other than the current project. There is little risk involved in this study. As a participant, you need only to read and indicate you responses below.

Potential Benefits:
Your responses are important because they may assist educators of at-risk students in the valuing of more positive relationships with students as additional means of increasing student achievement.

Compensation:
Participants will not be compensated for their participation in this survey.

Confidentiality:
All individual information will be kept confidential. Identifying individual and school information will not be included in the reporting of results. Teacher identifying information will be stripped soon after survey responses and class period growth model percentile information are matched. Research information will be securely stored and only accessed by the researcher. After data analysis, the researcher will retain a digital and hard copy of the research for three years. A hard copy will be housed in a locked fireproof container. All data will be destroyed at the end of the three years. The data will not contain identifying personal information.

Voluntary Nature of the Study:
Participation in this study is voluntary. Your decision to participate will not affect your current or future relations with Liberty University and/or BCMS. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts/Questions:
The researchers conducting this study are: Naima Williams and her advisor Dr. Tracey Pritchard. If there are questions or concerns about this survey they may be contacted at or.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher*(s)*, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24502 or email at irb@liberty.edu.

IRB Code Numbers: 2410.012916

IRB Expiration Date: 01/28/2017

ELECTRONIC CONSENT: Please print a copy of this page for your records and select your choice below.

Clicking on the "agree" button below indicates that:

• you have ready the above information
• you voluntarily agree to participate
• you are at least 18 years of age

If you do not wish to participate in the research study, please decline participation by clicking on the "disagree" button.

○ **Agree**

○ **Disagree**

Demographic Information

1) Last Name _____

2) First Name Initial _____

3) Gender

( ) Male

( ) Female

4) Race

( ) Asian

( ) Native Hawaiian or Other Pacific Islander

( ) Black/African-American

( ) White

( ) Hispanic/Latino

( ) American Indian/Alaska Native

( ) Other: _____

( ) Prefer not to answer

5) Years of teaching experience.

( ) Less than 1 year

( ) 1-10 years

( ) 11-20 years

( ) 21-30 years

( ) Over 30 years

6) What grade level did you teach during the 2013-2014 school year?

( ) 6th Grade Only

( ) 7th Grade Only

( ) 8th Grade Only

( ) Multiple Grade Levels

Teacher Responsibility Scale (TRS) (Lauermann & Karabenick, 2011)

Imagine that the following situations. To what extent would you feel PERSONALLY responsible that you should have prevented each of the following?

7) I would feel personally responsible if:

	0-Not at all Responsible	**1**	**2**	**3**	**4**	**5**	**6-Completely Responsible**
A student of mine thought he/she could not count on me when he/she needed help with something.	( )	( )	( )	( )	( )	( )	( )
A student of mine did not think that he/she can trust me with his/her problems in or outside of school.	( )	( )	( )	( )	( )	( )	( )
A student of mine did not believe that I truly cared about him/her.	( )	( )	( )	( )	( )	( )	( )

Problems in Schools Questionnaire (PIS; Deci, Schwartz, Sheinman & Ryan, 1981)

8) Jim is an average student who has been working at grade level. During the past two weeks he has appeared listless and has not been participating during reading group. The work he does is accurate but he has not been completing assignments. A phone conversation with his mother revealed no useful information. The most appropriate thing for Jim's teacher to do is:

	1-Very Inappropriate	**2**	**3**	**4- Moderately Inappropriate**	**5**	**6**	**7-Very Appropriate**
She should impress upon him the importance of finishing his assignments since he needs to learn this material for his own good.	( )	( )	( )	( )	( )	( )	( )
Let him know that he doesn't have to finish all of his work now and see if she can help him work out the cause of the listlessness.	( )	( )	( )	( )	( )	( )	( )
Make him stay after school until that day's assignments are done.	( )	( )	( )	( )	( )	( )	( )
Let him see how he compares with the other children in terms of his assignments and encourage him to catch up with the others.	( )	( )	( )	( )	( )	( )	( )

9) At a parent conference last night, Mr. and Mrs. Greene were told that their daughter Sarah has made more progress than expected since the time of the last conference. All agree that they hope she continues to improve so that she does not have to repeat the grade (which the Greene's have been kind of expecting since the last report card). As a result of the conference, the Greene's decide to:

	1-Very Inappropriate	**2**	**3**	**4- Moderately Inappropriate**	**5**	**6**	**7-Very Appropriate**
Increase her allowance and promise her a ten-speed if she continues to improve.	( )	( )	( )	( )	( )	( )	( )
Tell her that she's now doing as well as many of the other children in her class.	( )	( )	( )	( )	( )	( )	( )
Tell her about the report, letting her know that they're aware of her increased independence in school and at home.	( )	( )	( )	( )	( )	( )	( )
Continue to emphasize that she has to work hard to get better grades.	( )	( )	( )	( )	( )	( )	( )

10) **Donny loses his temper a lot and has a way of agitating other children. He doesn't respond well to what you tell him to do and you're concerned that he won't learn the social skills he needs. The best thing for you to do with him is:**

	1-Very Inappropriate	**2**	**3**	**4- Moderately Inappropriate**	**5**	**6**	**7-Very Appropriate**
Emphasize how important it is for him to control himself in order to succeed in school and in other situations.	( )	( )	( )	( )	( )	( )	( )
Put him in a special class which has the structure and reward contingencies which he needs.	( )	( )	( )	( )	( )	( )	( )
Help him see how other children behave in these various situations and praise him for doing the same.	( )	( )	( )	( )	( )	( )	( )
Realize that Donny is probably not getting the attention he needs and start being more responsive to him.	( )	( )	( )	( )	( )	( )	( )

11) Your son is one of the better players on his junior soccer team, which has been winning most of its games. However, you are concerned because he just told you he failed his unit spelling test and will have to retake it the day after tomorrow. You decide that the best thing to do is:

	1-Very Inappropriate	**2**	**3**	**4- Moderately Inappropriate**	**5**	**6**	**7-Very Appropriate**
Ask him to talk about how he plans to handle the situation.	( )	( )	( )	( )	( )	( )	( )
Tell him he probably ought to decide to forego tomorrow's game so he can catch up in spelling.	( )	( )	( )	( )	( )	( )	( )
See if others are in the same predicament and suggest he do as much preparation as the others.	( )	( )	( )	( )	( )	( )	( )
Make him miss tomorrow's game to study; soccer has been interfering too much with his schoolwork.	( )	( )	( )	( )	( )	( )	( )

12) The Rangers spelling group has been having trouble all year. How could Miss Wilson best help the Rangers?

	1-Very Inappropriate	**2**	**3**	**4- Moderately Inappropriate**	**5**	**6**	**7-Very Appropriate**
Have regular spelling bees so that Rangers will be motivated to do as well as the other groups.	( )	( )	( )	( )	( )	( )	( )
Make them drill more and give them special privileges for improvements.	( )	( )	( )	( )	( )	( )	( )
Have each child keep a spelling chart and emphasize how important it is to have a good chart.	( )	( )	( )	( )	( )	( )	( )
Help the group devise ways of learning the words together (skits, games, and so on).	( )	( )	( )	( )	( )	( )	( )

13) In your class is a girl named Margy who has been the butt of jokes for years. She is quiet and usually alone. In spite of the efforts of previous teachers, Margy has not been accepted by the other children. Your wisdom would guide you to:

	1-Very Inappropriate	**2**	**3**	**4- Moderately Inappropriate**	**5**	**6**	**7-Very Appropriate**
Prod her into interactions and provide her with much praise for any social initiative.	( )	( )	( )	( )	( )	( )	( )
Talk to her and emphasize that she should make friends so she'll be happier.	( )	( )	( )	( )	( )	( )	( )
Invite her to talk about her relations with the other kids, and encourage her to take small steps when she's ready.	( )	( )	( )	( )	( )	( )	( )
Encourage her to observe how other children relate and to join in with them.	( )	( )	( )	( )	( )	( )	( )

14) For the past few weeks things have been disappearing from the teacher's desk and lunch money has been taken from some of the children's desks. Today, Marvin was seen by the teacher taking a silver dollar paperweight from her desk. The teacher phoned Marvin's mother and spoke to her about this incident. Although the teacher suspects that Marvin has been responsible for the other thefts, she mentioned only the one and assured the mother that she'll keep a close eye on Marvin. The best thing for the mother to do is:

	1-Very Inappropriate	**2**	**3**	**4- Moderately Inappropriate**	**5**	**6**	**7-Very Appropriate**
Talk to him about the consequences of stealing and what it would mean in relation to the other kids.	( )	( )	( )	( )	( )	( )	( )
Talk to him about it, expressing her confidence in him and attempting to understand why he did it.	( )	( )	( )	( )	( )	( )	( )
Give him a good scolding; stealing is something, which cannot be tolerated, and he has to learn that.	( )	( )	( )	( )	( )	( )	( )
Emphasize that it was wrong and have him apologize to the teacher and promise not to do it again.	( )	( )	( )	( )	( )	( )	( )

15) Your child has been getting average grades, and you'd like to see her improve. A useful approach might be to:

	1-Very Inappropriate	**2**	**3**	**4- Moderately Inappropriate**	**5**	**6**	**7-Very Appropriate**
Encourage her to talk about her report card and what it means for her.	( )	( )	( )	( )	( )	( )	( )
Go over the report card with her; point out where she stands in the class.	( )	( )	( )	( )	( )	( )	( )
Stress that she should do better; she'll never get into college with grades like these.	( )	( )	( )	( )	( )	( )	( )
Offer her a dollar for every A and 50 cents for every B on future report cards.	( )	( )	( )	( )	( )	( )	( )

Thank You!

Thank you for taking our survey. Your response is very important to us.