

Fall 2012

Academic Optimism of Schools and Student Achievement

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ACADEMIC OPTIMISM OF SCHOOLS
AND STUDENT ACHIEVEMENT

by

PAMELA J. MCKINNON

(Under the Direction of Paul M. Brinson)

ABSTRACT

The pressure to perform well on high stakes testing may have caused many educational leaders to shift their focus away from developing a healthy organization that may enhance and possibly even predict student achievement to simply focusing on test scores. Hoy, Tarter and Hoy (2006) suggested that high levels of Academic Optimism-AO (including collective teacher efficacy-CTE, faculty trust in parents and students-FT, and academic emphasis-AE), when controlling for SES, is a strong force in predicting academic achievement. This study attempted to support previous research findings and to provide educational administrators with a framework for improving school organizational health for the purpose of enhancing student achievement.

This study examined the relationships between AO, its sub-constructs, and student achievement in reading and math, when controlling for SES, for four participating middle schools located in two school districts in southeast Georgia. The data was collected from the School Academic Optimism Survey (SAOS) which is designed to measure the overall level of academic optimism within the school and each of the sub-constructs. The SAOS provides 30 Likert-type items with 1-12 measuring CTE, 13-22 measuring FT and 23-30 measuring AE. Overall, the analysis of the relationship of AO of schools and achievement in reading and math, when controlling for SES, is not statistically significant

in this study. The variance in reading and math achievement showed 0% change in the relationship when adding AO as a predictor. Although some improvement in relationships, particularly in reading, was noted when adding the predictor variables of CTE, FT, and AE, the results suggested these variables did not predict student achievement over SES.

All schools in this study reported at least average levels of AO, all four schools were achieving in reading above the state percentage, and 3 of the 4 were achieving above the state percentage in math. Additionally, 3 of the 4 schools had populations of economically disadvantaged students above the state average. Although further research with a larger sample size is recommended, this may suggest that schools with low SES students are not necessarily at a disadvantage when variables associated with school organizational health are considered.

INDEX WORDS: Academic Optimism, Academic Emphasis, Collective Teacher Efficacy, Faculty Trust, Social Learning Theory, Self-Efficacy Theory, Social Cognitive Theory, School Organizational Health, Social Capital Theory

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Partial Fulfillment of the Requirements for the Degree

DOCTOR OF EDUCATION

STATESBORO, GEORGIA

2012

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Electronic Version Approved:
December, 2012

DEDICATION

First, I thank God for His gifts of life, energy, good health, and love that have been given to me allowing me to reach my personal and professional goals. I thank God also for placing beautiful people (family and friends) in my life who have sustained me with their words of encouragement, knowledge, continuous support, and love throughout my journey.

I dedicate this dissertation to my family, (my parents and my brothers), who taught me early on the value of education, who instilled in me the belief that I could do anything I wanted, and who, most importantly, taught me through their words and actions the true meaning of unconditional love.

I dedicate this dissertation to my husband, who continues year after year, to provide me with all the love and support I could ever need or want. Thank you for being by my side. I know in my heart, I could never have accomplished this without you. I should have said that more along the way.

I dedicate this dissertation to my three amazing children who inspire me much more than I could ever inspire them. I am so proud of each one of you. The insurmountable pride in me is because of who you are rather than anything I could accomplish or achieve.

To my wonderful and faithful friends, I know you are still there, patiently waiting for my life to return to “normal”. We are getting together soon.

Finally, it is done! Thanks and I love you all.

ACKNOWLEDGMENTS

To my dissertation committee, my sincere thanks for agreeing to be my committee, for sharing your knowledge, for being excellent at what you do and for wanting my success and achievement to happen for me as much as I did.

To Dr. Paul “Mac” Brinson, my committee chair, thank you for easing my fears and walking me through this process with kindness, support and continued acknowledgement of my strengths that allowed me to persevere. You are truly a gentleman and a gift to the field of education as well as to Georgia Southern University.

To Dr. Linda Arthur, my advisor, my mentor, my methodologist, my number one supporter, you are awesome! Thank you for your recommendations, especially early on to “funnel” to improve the synthesis of the literature. This was vital in laying the groundwork for the development of this research. Your energy, enthusiasm, and willingness to be there for me any time I called will forever be remembered and appreciated. I hope to pass on your ability to see the positive and embrace what you have as I mentor others. Enjoy retirement! You deserve it.

To Dr. Ralph Gornto, thank you so much for accepting to be a member of my committee without giving it a lot of thought. Your expertise and feedback was so important and helpful to the development of my ideas and to completion.

To my cohort members and colleagues, especially Leslie Forcina and Jim Pulos, when I was tired, you always came through with support, encouragement, and reminders that it would be worth it. We did it! Thank you!

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CHAPTER 1

INTRODUCTION

While the primary focus of education has always been on teaching and learning, a decade of intense federal mandates for accountability may have resulted in a shift of focus. Since President George W. Bush's No Child Left Behind Act (NCLB) of 2001, communities have become consumed with the practice of comparing one to school to another in a manner some would describe as unfair and even unjust. Particularly disturbing for educators is the practice or simply the idea of comparing student achievement of schools with high socioeconomic status (SES) to those with low SES. Though some educators may even agree and complain that the mandates are unrealistic and unjust for a variety of reasons, concern for fairness in the way educational administrators themselves compare schools may also exist.

Demands from lawmakers and community stakeholders are enormous, leaving teachers and principals feeling more pressure than ever to get students to perform well on high stakes testing, in part, enabling these educators to feel more confident they will maintain their employment. Teachers, as always, are expected to model exemplary practices for teaching and learning to occur in classrooms, but are forced to be concerned primarily with acceptable test scores as the ultimate prize for their efforts. Principals are expected to demonstrate the organizational and leadership skills as well as the disposition to facilitate teaching and learning in their schools, but whether the school makes adequate yearly progress (AYP) is their ultimate measurement of success. This narrow lens has blinded lawmakers, community stakeholders, parents and numerous educators from seeing a broader view of overall effectiveness related to school organizational health and

its influence on student achievement. Conversely, the federal mandates, as well as unfair comparison practices, have caused some researchers and educational administrators to turn their attention toward what works in schools and pursue a magic formula for producing high achieving schools. Seeking out the magic formula is vital since stakes are high leading to losses of not only federal funding but losses in community and parental support.

Researchers have failed to identify precisely or even agree on what variables predetermine student success or contribute most significantly to student achievement. Over time debates have ensued and range from the importance of having an effective leader to having students in the schools with more privileged backgrounds and parental support. Educational administrators should look for ways to level the playing field when comparing schools with stakes being so high, and would serve students and their communities well by analyzing other factors associated with student learning and overall achievement, such as the collective, school-wide efforts of their entire faculty beyond the leader and the socioeconomic status of students.

Background of the Study

As early as 1966, Coleman and his colleagues found that when looking at student achievement, differences in family background for students mattered more than the characteristics of a school. Edmonds (1979) was one of the first to challenge this finding by providing a list of effective school characteristics, including high expectations, emphasis on basic skills, an orderly environment, and frequent evaluation of students. Edmonds (1979) largely supported the idea though that good schools were the products of good administrators. Rutter, Maughan, Mortimore, and Outson (1979) also challenged

the Coleman report (1966) and suggested that what can be achieved by classroom teaching is greatly influenced by the characteristics of the school as an organization, specifically the different ways they implement common policies and practices. Rutter et al (1979) found that differences in behavior and attainments in schools were associated with school climate and school expectations, and were not related to financial or physical resources available to them or in administrative duties and responsibilities. Their findings placed importance on the quality of the school as a social institution (Rutter et al, 1979).

Recent researchers have supported Edmonds (1979) and have adhered to the premise that student success begins with the school leader and it is the leader that matters most. Some researchers contend that a considerable amount of responsibility is on the principal to indirectly if not directly influence instructional practices and student achievement, and have identified specific characteristics of the leaders that enhance student learning, such as the ability to establish trust with the teachers and to improve collective efficacy in teachers (Leithwood & Jantzi, 2008; Leithwood & Mascall, 2008; Leithwood & Wahlstrom, 2008; Wahlstrom & Louis, 2008). Marzano (2003) placed emphasis on strong leadership but placed equal value in other school factors, such as having a guaranteed and viable curriculum, having challenging goals and effective feedback, having parent and community involvement, and providing a safe and orderly environment for students and staff.

Researchers have also identified characteristics of teachers and have noted the importance of their ability as a group to place trust in each other, in their leaders and their students' parents, and to work collaboratively and collectively to accomplish the task of

getting students to learn (Goddard, Goddard, & Tschannen-Moran, 2007; Tschannen-Moran & Barr, 2004; Tschannen-Moran, & Hoy, 2007). Much has been written regarding the teacher-teacher relationship for collegial support, professional development, academic preparedness and shared leadership related to exemplary instructional practices (Gabriel, Day & Allington, 2011; Goodwin, 2008; Wahlstrom & Louis, 2008). Good classroom management skills are found to enhance learning (Crawford, 2004; Garrahy, Kulinna & Cothran, 2005; Schindler, 2009). The need for teachers to have high levels of social and emotional competence for handling stress associated with the job of teaching is also emphasized (Jennings & Greenberg, 2008). A plethora of literature exists placing importance on a teacher's ability to establish a positive relationship with a student to maximize the student's potential (Crossman, 2007; Marlow, 2011; Martin & Dowson, 2009), to utilize strategies for pedagogical connectedness to engage students in the learning process (Grossman, 2011; Zyngier, 2003, 2007) and to motivate students by promoting a success- versus a failure- psychology in the classroom (Martin, 2008; Schindler, 2009).

In addition, researchers have found a connection between teacher efficacy and student achievement (Woolfolk & Hoy, 1990) Teachers' beliefs in their own abilities or efficacy, their beliefs in their students and their beliefs about the processes of change for professional growth and development have been found to be positively correlated with each other (Richards, Gallo, & Renandya, 2001). Increased interest in teacher, self- and collective efficacy reached a peak from 1998-2009, but according to Klassen, Tze, Betts and Gordon (2010), more research is needed to provide evidence for specific connections between teacher efficacy and student outcomes as well as its relevance to actual practices.

Researchers have pointed to a multitude of factors that appear to contribute to student success or achievement, and it seems that Coleman (1966) may not have been entirely incorrect about the impact of SES (Smith & Hoy, 2007). Auwarter and Aruguete (2008) found that teachers perceive students with low SES as having less promising futures, and suggested that a negative attitude toward these students, especially boys, may contribute to lower teacher efficacy in schools that are more economically disadvantaged.

On the contrary, Reeves (2003) studied 90/90/90 schools; that is, those schools with 90% of the students receiving free and/or reduced priced lunches, 90% of the students being ethnic minorities and 90% meeting high standards of achievement, and found common characteristics among them. All demonstrated characteristics including: a focus on academic achievement, clear curriculum choices, frequent assessment of student progress and multiple opportunities for improvement, an emphasis on nonfiction writing, and finally, collaborative scoring of student work. Well documented strategies, within the control of teachers and leaders were considered more influential on student achievement than poverty (Reeves, 2003).

One construct that is fairly new in the research that may serve to overcome SES, falls within the locus of control for teachers and leaders, and allows a more accurate comparison of schools is that of academic optimism. Defined by Hoy, Tarter, and Hoy (2006), academic optimism is made up of collective teacher efficacy, faculty trust in parents and students and academic emphasis. These constructs are intertwined and reinforced by each other to positively impact student performance (Hoy et al, 2006). In a study by Mascal, Leithwood, Straus, and Sacks (2008), high levels of academic optimism were associated with distributed leadership, and conversely, when leadership

was not planned and aligned with practices in the schools, low levels of academic optimism were found.

Statement of the Problem

There is no scarcity of information as to what characteristics leaders, teachers, and students must possess that may lead to student achievement. The research on the characteristics of schools as organizations leading to student achievement is not as voluminous, however, and can be described as fragmented with researchers studying a multitude of constructs with very little cohesiveness existing among the many variables. Hoy et al (2006) presented the construct of academic optimism of schools and found the organizational properties of collective teacher efficacy, faculty trust in parents and students, and academic emphasis to be strong predictors for student achievement in high school. These results were obtained after controlling for SES, controlling for previous achievement based on the proportion of students who passed state mandated assessments, and other demographic variables (Hoy et al, 2006). The construct of academic optimism encompasses what most researchers have identified as critical antecedents to promote student achievement but no studies could be found on this construct in the southern part of the United States, specifically Georgia. Further research of this study is needed to determine if a relationship exists between the variables for academic optimism: collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE); and student achievement in this region. Given the current focus on accountability, the inappropriate comparisons of schools that may result, and the possible lack of focus on overall school health, the researcher proposes to examine the relationship between academic optimism of schools, its constructs and student achievement when controlling

for SES. The purpose for further establishing this relationship in this region of the United States would serve to widen the lens for educators and community stakeholders and promote a broader examination of overall school effectiveness related to the factors or variables that enhance organizational health of schools and student achievement.

Research Questions

The overarching question for this study is: Does a relationship exist between academic optimism and student achievement when controlling for SES? Subquestions for this study are as follows:

- 1) Does a relationship exist between collective teacher efficacy (CTE) and student achievement when controlling for SES?
- 2) Does a relationship exist between faculty trust in parents and students (FT) and student achievement when controlling for SES?
- 3) Does a relationship exist between academic emphasis (AE) and student achievement when controlling for SES?

Significance of the Study

As educators, researchers, and parents, we should continuously search for the formula for student success and remain focused on the core of education which is teaching and learning. This study may provide educational leaders with areas of focus to enhance student learning beyond curriculum and instruction and may offer administrators an organizational framework to promote a healthy organization leading to student achievement. Academic optimism may be the formula for which educators are seeking and may provide the needed framework to meet the demands and challenges associated with federal mandates while offering a more just and fair comparison of the effectiveness

of schools. Continued research is needed to provide support for the importance of academic optimism, including collective teacher efficacy (CTE), faculty trust in parents and students (FT), and academic emphasis (AE) and its contribution to student achievement. The components of academic optimism are within the locus of control for educators. If there is a relationship between academic optimism and student achievement, then teachers and principals can work together to improve collective teacher efficacy, faculty trust in parents and students and academic emphasis as a means to improving student achievement.

Delimitations, Limitations and Assumptions

Of primary concern is the geographic location for which the study was conducted which was the southern part of the state of Georgia. The ability to be able to generalize the results to other regions of Georgia and the United States is a delimitation of the study. Conducting this study in one area of one southern state narrows the scope of the research. It was further narrowed to only include middle schools in two school districts. Limitations that may also influence the ability to generalize the results include student and faculty compositions as well as school sizes.

A convenience sample of schools was selected; however, the sample of schools is representative of middle schools in the state of Georgia. Participants in this study were not randomly selected. Since the researcher wanted to measure academic optimism and its components, it is not logical to select all teachers in one school if they have not been working at the school for at least one school term. It was assumed that participants would need to be a part of the group or faculty of the school for a minimum of one school term to be able to make a more honest judgment about the school's collective abilities,

beliefs, and attitudes. It was assumed that participants would follow procedures accurately for completing and submitting the online survey. Since anonymity was assured, it was also assumed participants would provide open and honest responses.

Based on previous research results, the survey used, the School Academic Optimism Survey (SAOS), was assumed to be a reliable and valid measure of academic optimism. This survey provided a “snap shot” of teacher perceptions for those who have been at the school for at least one year and did not account for further differences based on years of experience at each school or years of teaching experience.

The study was also not longitudinal and did not measure changes in teacher perception over time. Had the researcher opted for a longitudinal study and/or chosen a mixed-methods design, teacher responses may be richer in detail and offer more insight to educational leaders who wish to build an effective organizational framework to enhance learning.

Additional limitations of this study should be mentioned. The unit of analysis was teachers since they provided responses to the level of academic optimism for their schools. Survey responses were based on perceptions of the collective body rather than the individual teacher and thus, were compared to school wide data for achievement rather than achievement data associated with each teacher for their students. Also, accountability practices associated with No Child Left Behind (2012) takes into account the overall level of achievement school wide in determining whether the school makes adequate yearly progress (AYP) rather than individual teachers. However, given both the convenience sample size of only four schools used in the study and the analysis of teacher and school wide data, results should be interpreted with caution.

Definition of Terms

Collective teacher efficacy (CTE): The judgment or belief of teachers that the faculty as a whole can organize and execute the actions required to have positive effects on students (Goddard, Hoy, and Woolfolk-Hoy, 2000). Bandura (1997) defined collective efficacy as “a group’s shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments” (p.477). Results of the SAOS will be used to measure collective teacher efficacy.

Faculty trust in parents and students (FT): A willingness to be vulnerable to another party based on the confidence that that party is benevolent, reliable, competent, honest, and open (Hoy and Tschannen-Moran, 2003). Faculty trust will be measured using the SAOS.

Academic emphasis (AE): The extent to which a school is driven by a quest for academic excellence—a press for academic achievement (Hoy and Miskel, 2005). Schools with high academic emphasis are schools with high but attainable student achievement goals; an orderly learning environment; students who are motivated to work hard toward goals and students who demonstrate respect for academic achievement (Hoy and Miskel, 2005). The SAOS will measure academic emphasis.

Academic optimism (AO): This is comprised of the elements of collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE) (Hoy et al, 2006). The elements interact, are described as having transactional relationships and include three domains: cognitive (beliefs) represented by CTE, affective (feelings) represented by FT, and behavioral (actions) represented by AE (Hoy et al,

2006). The SAOS contains items linked to the three variables (CTE, FT, and AE) and will be utilized to measure academic optimism (AO).

Socioeconomic status (SES): The socioeconomic status (SES) of schools in this study was determined by the percentage of economically disadvantaged students in the school. This is determined by the number of students eligible to receive free and/or reduced priced lunches. The higher the percentage of students receiving free and/or reduced priced lunches, the higher percentage of economically disadvantaged, and the higher the poverty rate at the school.

Adequate Yearly Progress (AYP): A federally mandated component of the Accountability Profile based on a series of performance goals and second indicators that every school, LEA, and state must achieve within specified timeframes (www.doe.k12.ga.us, 2012).

Program/Needs Improvement: The identification for a school or LEA that has not made AYP for two or more consecutive years in the same subject or second indicator for schools, and in the same subject or second indicator for elementary, middle and high school, grade spans for LEAs. (www.doe.k12.ga.us, 2012).

Student achievement: Defined in this study as the percentage of students who met or exceeded expectations on the Criterion Referenced Competency Tests (CRCT) in reading and math content areas. Reading and math was selected based on the importance placed upon these two areas for making AYP.

Summary

With increased pressure and accountability from NCLB (2001), lawmakers, parents, community stakeholders and even some educators have begun the practice of

unfairly comparing schools solely on the basis of whether they achieve “adequate yearly progress (AYP)” with little regard for measuring whether schools are actually operating effectively as a healthy organization to enhance student achievement. The literature suggests that a positive relationship exists between the variables or constructs of academic optimism (AO): including collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE); and student achievement. It is suggested that high levels of academic optimism, when controlling for SES, is a strong force in predicting academic achievement and may be valuable for comparing the overall effectiveness of schools.

This study examined the relationship between academic optimism and student achievement for reading and math content areas, when controlling for SES, for participating middle schools located in two school districts in southeast Georgia. A quantitative, nonexperimental research design was utilized and results were analyzed from electronic or online surveys. The data collected from the School Academic Optimism Survey (SAOS) is reported for the overall construct of academic optimism and for each of the variables (collective teacher efficacy, faculty trust in parents and students and academic emphasis) to determine whether a significant relationship exists between these variables and student achievement. This study attempted to support previous research findings and to provide educational administrators with a framework for improving their schools as healthy organizations for the purpose of enhancing student learning.

CHAPTER 2

REVIEW OF THE LITERATURE

Theoretical Foundations of Academic Optimism

For 40 years, Hoy and his colleagues have conducted research for the purpose of determining what organizational factors make schools better places for teachers to teach and better for students to learn (Hoy, 2012). In 2006, Hoy et al presented the construct of academic optimism of schools and found the organizational properties of collective efficacy, faculty trust in parents and students and academic emphasis to be strong predictors for student achievement in high school. After researching these variables separately, Hoy et al (2006) determined that together, the three variables create a very positive academic environment which produces a very positive and potent force for learning, thus labeling the overall construct academic optimism (Hoy, 2010). Hoy reveals that this construct evolved from positive or humanist psychology with “theoretical foundations from Albert Bandura’s social cognitive and self-efficacy theories, James Coleman’s social capital theory, he and his colleagues’ work on culture and climate, and Martin Seligman’s concept of learned optimism” (Hoy, 2010). A review of these concepts, theories or areas of research laying the foundation for the general latent construct of academic optimism is provided.

Positive Psychology and Learned Optimism

Martin Seligman and Mihaly Csikszentmihalyi (2000) introduced a need for shifting the focus of the field of psychology from one that was mired in the disease model or pathology of mental illness to a more positive concentration that builds positive

qualities in individuals and makes life worth living. Seligman and Csikszentmihalyi (2000) introduced positive psychology by describing the field in the following manner:

The field of positive psychology at the subjective level is about valued subjective experiences: well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present). At the individual level, it is about positive individual traits: the capacity for love and vocation, courage, and interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, spirituality, high talent, and wisdom. At the group level, it is about civic virtues and the institutions that move individuals toward better citizenship: responsibility, nurturance, altruism, civility, moderation, tolerance, and work ethic. (p.5).

By encouraging this shift of focus in the scientific community which evolved from Seligman's prior work on learned optimism (1991), Seligman and Csikszentmihalyi (2000) proposed using positive psychology as a means for improving the human condition and working to prevent mental illness.

According to Seligman (2006), we operate in workplaces and in schools assuming that success comes from combining talent with desire or motivation, but he presents that failure can occur when talent and desire are present but optimism is lacking. A crucial component to learned optimism is changing the negative or destructive things we say to ourselves when we experience setbacks and viewing them as simply setbacks that are within our personal control (Seligman, 2006). By explaining why negative events happen

in a more positive way and not having a giving-up reaction as is found in Seligman's work on learned helplessness, we are happier individuals, we avoid depressive tendencies and we are more content and satisfied with our lives (Seligman, 2006). Seligman (2006) purports that learned optimism gets people over the wall of learned pessimism either as individuals or organizational participants. A pessimistic view is one that is apathetic and defeating, and is in direct conflict with academic optimism as an effective organizational, collective property. By shifting from fixing what is wrong to learning optimism, individuals and communities will learn to build qualities that help us not only endure and survive but also flourish (Seligman, 2002). Learned optimism provides part of the basis or foundation for academic optimism, but Smith and Hoy (2007) suggest that while learned optimism is an individual characteristic, academic optimism is a collective property.

Hoy and Colleagues on Culture and Climate

In the early 70s, Hoy and his colleagues began directing their attention to school climate and how this affects students' attitudes and behavior. They found that schools with open and humanistic climates facilitated positive student outcomes, particularly with regard to attitudes and self-actualization (Hoy, 2012). These schools displayed more authentic interactions between students and teachers and principals led by positive example (Hoy, 2012). Wanting to know more about the positive effects of school climate, Hoy and his colleagues wanted to determine the relationship between school climate and student achievement, but results were discouraging as positive climate did not appear significant when accounting for the variances in achievement, especially not compared to the impact that was found in socioeconomic status (Hoy, 2012). Hoy and

his colleagues then began to seek organizational variables that were just as powerful as socioeconomic status in predicting student achievement. The years ahead involved individual research on the organizational properties of collective teacher efficacy (CTE), faculty trust in parents and students (FT), and academic emphasis (AE) leading to academic optimism (AO) which comprises the three variables and ultimately the important study of 2006 that found academic optimism to be a powerful predictor of success in 96 high schools in Ohio (Hoy et al, 2006).

Collective Teacher Efficacy and Self-Efficacy Theory

Teacher efficacy is described by Gibson and Dembo (1984) as multidimensional involving two components that correlate with Bandura's self-efficacy theory: a sense of personal teaching efficacy, which is a teacher's belief that he or she has the skills and ability to bring about student learning; and, a sense of teaching efficacy, a belief that any teacher's ability to bring about change is limited significantly by external factors beyond their control, such as the home, family, and parents. Positive correlations have been found between teacher efficacy and effective instruction, positive and proactive classroom management and student achievement (Goddard, Hoy & Hoy, 2009; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Barr, 2004; Wolters & Daugherty, 2007; Woolfolk, 2007). Low teacher efficacy has been associated with poorer student outcomes, possible loss of engagement with students and their learning and being less receptive to the ideas, strategies and services recommended by consultants or specialists (Luiselli & Diament, 2002; Pas, Bradshaw, Hershfeldt, & Leaf, 2010; Woolfolk & Hoy, 1990).

Additionally, several studies have focused on teacher efficacy and teacher-student relationships. According to Betoret (2006), student misbehavior consistently ranks as one of the top reasons for teacher stress and burnout leading to low teacher efficacy and low job satisfaction and resulting in a less motivated and less stable workforce. The Organization for Economic Cooperation and Development, OECD, (2009) reported that teacher-student relations are positively associated with classroom disciplinary climate and with teachers' reported efficacy.

The research is much less extensive, however, on the impact of collective teacher efficacy (CTE), referred to by Klassen (2010) as the collective perception of group-level judgments of the capabilities of the staff or school to which they belong. Tschannen-Moran and Barr (2004) defined CTE as the collective perception of teachers in a given school to be able to make an educational difference to their students over and above the educational impact of their homes and communities. Goddard and Goddard (2001a) reported that organizations, if they believe they will be successful, are much more likely to pursue activities requested of them.

Bandura (1997) defined perceived collective efficacy within schools as the judgment of the faculty about the performance capability of the social system as a whole. Bandura (1997) described schools with high CTE as efficacious and noted similarities in these schools, such as setting higher standards for students both behaviorally and academically, using instructional time more wisely, being more resilient to changes in practices, and being more proficient at monitoring student progress.

More recent research is finding that teachers in efficacious schools, that is those schools with high CTE, are more satisfied with their jobs, are better able to manage

student behavior resulting in less job stress, and have a higher degree of professional commitment to the organization's mission and goals (Klassen, 2010; Skaalvik & Skaalvik; 2007; Ware & Kitsantas, 2007). Moreover, teachers in efficacious schools demonstrate aspects of productivity and positive behaviors that affect school culture and contribute significantly to its effectiveness (Hoy, 2009).

According to Bandura (1986, 1997), all efficacy belief constructs—student, teacher, and collective—are future-oriented judgments about capabilities. Bandura (1997) stated the following:

People's beliefs in their efficacy influence the courses of action they choose to pursue, the effort they put into given endeavors, how long they will persevere in the face of obstacles and failures, their resilience to adversity, whether their thoughts are self-hindering or self-aiding, how much stress and depression they experience in coping with taxing environmental demands, and the level of accomplishment they realize. (p. 3)

Goddard, Hoy and Hoy (2004) stated that according to Bandura's social cognitive theory, the choices that individuals and organizations make are greatly influenced by the strength of their efficacy beliefs. Goodwin (2004) suggested that when looking for good teachers, school leaders should seriously consider intangibles and place importance on teachers who believe all students can learn and who believe in their own abilities. When faced with challenges or failures that tend to reduce motivation, beliefs about these setbacks may be relieved by beliefs in their colleagues' collective capability to effect change and will influence how the school staff as a group copes with any failures or setbacks (Klassen, et al, 2010).

Goddard et al (2000a) found that collectively teachers' perceptions about the faculty's capability for teaching the students results in norms that influence the actions and achievement of the schools. According to Bandura's social cognitive theory (1997), teacher's make choices based on known norms within the school and are rewarded if they embrace them and are sanctioned if they choose to ignore them. The action taken by teachers or choices made are related to one or more of the following efficacy-shaping sources of information: verbal persuasion, vicarious experiences, mastery experiences and/or affective state (Bandura, 1997). By becoming more aware of CTE and its sources, educators could promote the development of CTE in schools. According to Cybulski et al (2005), this could be done by using data for decision making (verbal persuasion), offering well-thought out professional development opportunities (vicarious experiences) and by placing teachers in positions that will promote individual success (mastery experiences). Smith and Hoy (2007) add that while individuals react to stress, so do organizations, and perceptions (affective state) of capability or incompetence will also contribute to the choices made by teachers.

By analyzing a school's level of CTE, an educational leader would be able to assess the health of the organization regarding its willingness to take on the demands and challenges set forth by federal mandates in this age of accountability. Interestingly, with increases in accountability and fiscal uncertainty, Cybulski, Hoy and Sweetland (2005) found strong support for CTE and student achievement but did not find direct or indirect effects on fiscal efficiency measures or the way the schools spent their money. This finding lends further support for the notion that while educators may not be able to control monetary resources received and/or the socioeconomic status of its students, CTE

is within the control of teachers and could be used to enact change to enhance student achievement.

The Collective Teacher Efficacy Belief Scale (CTEBS) created by Tschannen-Moran and Barr in 2004 has been found to be reliable in measuring collective teacher efficacy beliefs. The SAOS was also found to be reliable in measuring CTE (Sims, 2011).

Faculty Trust and Social Learning Theory

A second characteristic of effective schools and a construct of academic optimism deals with faculty trust in parents and students. Hoy et al (2006) have defined faculty trust in parents and students (FT) as a willingness to be vulnerable to another party based on the confidence that that party is benevolent, reliable, honest, competent, and open. While levels of efficacy represent beliefs about abilities, levels of trust tend to represent feelings toward others (Hoy et al, 2006).

There is a great deal of research supporting the positive effects of collegial trust, faculty who trust each other, teacher-teacher and teacher-principal. After controlling for individual teacher characteristics, Van Maele and Van Houtte (2011) investigated the structural, compositional, and cultural characteristics of schools to determine the influences of trust among colleagues and found that when teachers share assumptions about their students' ability to be taught, trust is fostered. Of particular interest is the recent study by Daly (2009) on "threat-rigid responses" toward federal mandates in teachers and administrators from schools deemed as "program improvement" by the state. The finding indicated that leaders who trusted teachers, empowered them and involved

them, had faculties that demonstrated less “threat-rigid responses”, meaning they were less stressed, discussed options and engaged in decision making (Daly, 2009).

While a plethora of recent research exists for faculty trust, the focus of the research for faculty trust in parents and students, the second variable of academic optimism, is more about the faculty’s perceptions of students being willing to engage in their learning and parents who are supportive of the faculty’s efforts. This construct is critical for the organizational health of the school. All relationships are both trusting and reciprocal as all parties depend and rely on each other as stakeholders to be successful. Smith and Hoy (2007) found that when teachers trust parents, they also trust students and vice versa. Since schools are mandated through reform initiatives to involve parents in school governance, such as school councils, a lack of trust among all parties could be a serious impediment to improvement or effectiveness as trust strengthens productive norms for both group and individual accomplishments to occur (Goddard, Tschannen-Moran & Hoy, 2001b).

Schools with high levels of relational trust among all parties have similar qualities. According to Tschannen-Moran (2001) and Tschannen-Moran and Hoy (2000), the schools with high levels of trust tend to have faculty who are more likely to openly and accurately communicate with each other, they often engage in shared decision making, and demonstrate greater citizenship, meaning they frequently will engage in desirable behaviors that are not required of them without expecting to be recognized or compensated. Bryk and Schneider (2002) found schools with high levels of relational trust to be more effective with greater improvement related to student achievement. They are better at building professional learning communities within the school to enhance

student learning, which is in part due to having a leader who has a flexible orientation to the organization's structure (Louis, 2006; and Tschannen-Moran, 2009). Leaders in high trust schools place trust in teachers to respond appropriately to the needs of the students (Louis, 2006; Tschannen-Moran, 2009). Additionally, schools with high levels of faculty trust among all parties are reported overall to have a healthier school climate (Tschannen-Moran, 2001; Tschannen-Moran & Hoy, 2000).

Faculty trust that is established through professional learning communities and shared leadership or decision making, may be, according to Bandura's (1977) social learning theory, a symbolic form of cognitive motivation resulting from goal setting and positive self-evaluation. When teachers share the attitude that all students can be taught and can learn at satisfactory levels, work collaboratively with other teachers, parents and the students themselves, these teachers may have begun to attribute satisfaction from goal attainment and will persist in their efforts until their performance matches the goal they are seeking to achieve for their students. By engaging in these practices, trust is developed and a feeling is generated that others will help them in their endeavors to accomplish their goals.

By analyzing faculty trust, educational administrators would be able to look to this as a means for school improvement and should work to maintain the performance of teachers in highly effective school organizations. This is especially crucial for schools with a high percentage of disadvantaged students. Goddard et al (2001b), in what they purported to be the first study linking faculty trust in parents and students to achievement, found that the larger the proportion of poor students, the lower teachers' perceptions of trust.

Although numerous scales measuring trust have been used, the 27-item Trust Scale used by Daly (2009) was found to be a reliable measure of faculty trust and measures seven areas of trust including: benevolence, competence, integrity, openness, reliability, respect, and risk. Tschannen-Moran (2009) used the Faculty Trust Scales and also found this to be a reliable measure. The SAOS was found to be a reliable measure as well, according to Sims (2011).

Faculty Trust and Social Capital Theory

Coleman (1988) developed his social capital theory to account for the differences that give Catholic schools an advantage over public schools, specifically related to what he called “social closure” which exists when all of the students’ close friends attend the school and all of the students’ parents know each other. According to Coleman (1988) “social capital” is defined by its function and comes about through changes in the relations among people that will facilitate certain actions and may constrain others. Social capital is found inside and outside of the family and involves all social structures. Coleman (1988) believed that purposive action in conjunction with a particular context contributes significantly to the development of the social organization. Social capital is productive, making possible the achievement of certain ends that would not be possible without it (Coleman, 1988). He provides the example, that a group with extensive trustworthiness and trust is able to accomplish much more than a group without trustworthiness and trust (Coleman, 1988). In addition, norms in a community that support and provide effective rewards for high achievement in school greatly facilitate the school’s task (Coleman, 1988).

In 1999, Morgan and Sorensen expanded on Coleman's theory and made distinctions among two different types of social organizations within schools: a norm-enforcing school which is the set of relationships forged among parents, students and their teachers, among fellow teachers and among parents and teachers; and the horizon-expanding school which is similar to norm-enforcing but parents do not devote as much time to the cultivation of bonds with the parents of their children's school friends or with school administrators. Morgan and Sorensen (1999) challenged Coleman's findings in his study in 1988 on Catholic school advantages and found that horizon-expanding schools offer benefits to students such as exposure to the wider society which increases student efforts to learn, particularly in the public sector, that outweigh those of norm-enforcing schools typical of Catholic schools.

The educational research on social capital continued to rise to prominence. In 2003, Horvat, Weininger, and Lareau were interested in assessing how social capital comes into play when problems arise at school, specifically the use of parental networks or the parents' capacity to intervene. Horvat et al (2003) found that parental networks differ dramatically by social class (not race) with social capital considerably more common in the middle class over the working class or poor parents. Middle class parents involved professionals in their networks when they felt the need to intervene and used the professionals as resources to bring about a desired outcome for their children when problems arise such as the inappropriate behavior of a teacher (Horvat et al, 2003). Middle class parents were more proactive, would provide needed resources for their children's education and would challenge the school's authority collectively while

working class and poor parents may do so, but would do so individually (Horvat et al, 2003).

Since academic optimism is concerned primarily with the school as an organization, or collective whole, the especially important form of social capital that likely interested Hoy and his colleagues is the norm that one should set aside self-interest and act in the interests of the collective body. Bolino, Turnley, and Bloodgood (2002) suggested a link between proactive behavior in employees and social capital and noted that “social capital reflects employees’ willingness to exceed their formal job requirements in order to help each other, to subordinate their individual interests for the good of the organization, and to take a genuine interest in the organization’s activities and overall mission”. In 2005, Thompson’s study on proactivity and job performance suggested that proactive employees that achieve high performance build social capital to promote effective change and he added that it would benefit an organization to provide both space and opportunity for employees to exercise initiative in the workplace.

Hoy was not alone in linking Bandura’s social cognitive theory and Coleman’s social capital theory as he explored foundations for academic optimism. In 2006, Chiu, Hsu and Wang, stated that while the social cognitive theory argues that a person’s behavior is controlled by the influences of social systems or networks and the person’s expectations and beliefs, the social cognitive theory does not provide the resources within the social systems and how this affects behavior. They supplemented their study on knowledge sharing with links to social capital theory and found that social interaction ties, reciprocity and identification will increase an individual’s quantity of knowledge (Chiu et al, 2006).

Academic Emphasis and Social Learning Theory

The third construct of academic optimism, a characteristic found consistently by researchers to positively impact student achievement, is the academic emphasis of a school. While CTE focuses on beliefs and FT focuses on feelings, AE focuses on the actions or behaviors of the faculty as a whole or collective body. In schools with high levels of academic emphasis (AE), the focus on academics is paramount and the overall school climate supports this perspective from administrators and teachers to students. Goddard, Sweetland, and Hoy (2000) defined academic emphasis as the extent to which a drive for academic excellence contributes to the behavioral and environmental push of the school. A school with high academic emphasis is described as having teachers who set high but achievable goals for students and they believe in their students' capability, the environment for learning is serious, and academic success is both sought after and respected by everyone (Goddard, et al 2000). While effectiveness is related to student learning and instructional programming that is uncompromising, the importance placed on the drive for success must also be apparent and emphasized (Goddard, et al 2000).

An analysis of academic emphasis in a school would involve individuals' perceptions of the group's focus on academics and the overall school climate. According to Bandura's (1986, 1997) social learning theory, perceptions influence actions and the actions are judged by the group based on group norms. In relation to the construct of academic emphasis, this would mean believing in the pursuit of academic excellence and engaging in actions that support this belief. It would also suggest that social sanctions might be imposed for those who do not engage in such actions and might include suggesting participation in professional development training for classroom management

to teachers whose classrooms are disorderly and not conducive to learning. In finding a positive impact on student achievement in both reading and math, particularly for poor and minority students when measuring for academic emphasis, Goddard et al (2000) found that a school climate with strong academic emphasis reinforces a pattern of overall collective beliefs that are beneficial to the school. The Organizational Health Inventory and the SAOS have been found to be reliable in measuring academic emphasis (Hoy & Tarter, 1997; Sims, 2011).

Academic Optimism and Social Cognitive Theory

The three constructs of collective teacher efficacy (CTE), faculty trust in parents and students (FT), and academic emphasis (AE) are interdependent characteristics of effective schools, and according to Smith and Hoy (2007), high levels of each are significant predictors of student achievement in spite of SES. CTE, FT, and AE were assessed by Hoy et al (2006) as “emergent organizational attributes”. Rather than being the sum of individual, personal attributes, the constructs were assessed as group level attributes that work together to form powerful norms of expected behaviors for the group (Hoy et al, 2006).

According to Bandura, (1997), individuals process interactions and information constantly which influences beliefs about capabilities and they act upon their beliefs through a combination of cognitive, behavioral, and affective responses. In his social cognitive theory, Bandura (1997) described individuals as both *agent* and *object* using self-reflection of experiences and self-influential courses of action simultaneously to manage their environment and adapt to its demands (p.5).

Figure 2.1 below was adapted from Bandura's (1986) social cognitive theory and illustrates reciprocal causal relationships for the theory including behavior, internal personal factors and the environment that provides a foundation for academic optimism.

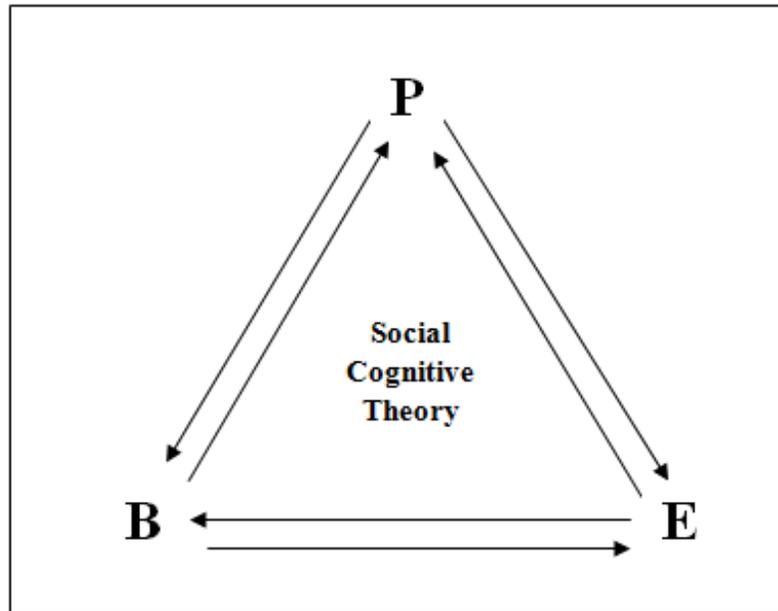


Figure 2.1. Reciprocal causal relationships with B = behavior, P = internal personal factors (cognitive, affective, and behavioral); and E = influences from the external environment. Adapted from "Social foundations of thought and action: a social cognitive theory" by A. Bandura. Copyright 1986 by Prentice-Hall, Englewood Cliffs, NJ.

According to Hoy et al (2006), collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE) create a very positive academic environment termed academic optimism (AO). Academic optimism (AO) is diagrammed similarly to Bandura's (1997) social cognitive theory, is representative of the cognitive, affective and behavioral dimensions and illustrates the reciprocal causal relationships (Hoy & DiPaola, 2007). The variables are essentially interconnected and interdependent

for maximizing student achievement, thus, it is appropriate to utilize the bidirectional relationship representation. For example, when collective teacher efficacy increases this fosters a higher level of faculty trust and vice versa. Figure 2.2 below was adapted from Hoy et al (2006) and illustrates academic optimism with “C” for collective efficacy which is cognitive and representative of a belief or expectation, “F” for faculty trust in parents and schools which is affective, and “A” for academic emphasis which represents the push for specific observable behaviors in faculty and students.

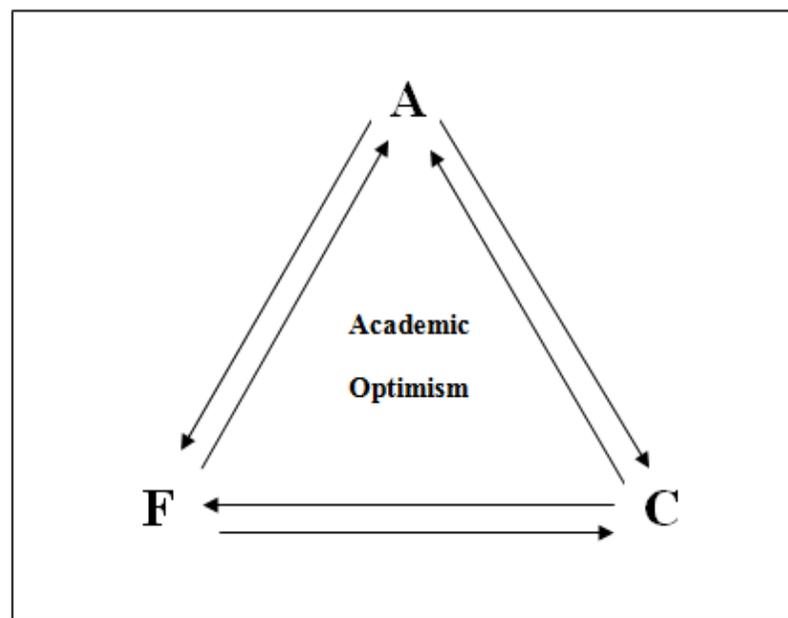


Figure 2.2. Reciprocal causal relationships of Academic Optimism in schools with A = Academic Emphasis (behavior); C = Collective Teacher Efficacy (cognitive); and F = Faculty Trust in parents and students (affective). Adapted from “Academic optimism of schools: a force for student achievement by W. Hoy, C. Tarter, and A. Woolfolk-Hoy, 2006, *American Educational Research Journal*, 43, p. 432.

McGuigan and Hoy (2006) took the research of Hoy et al (2006) a step further and revealed that principals who provided enabling school structures, that is, provided rules, policies and procedures that enabled the teaching and learning mission of the school, resulted in a culture of academic optimism.

The School Academic Optimism Survey (SAOS) has been found by Sims (2011) to be a highly reliable measure of academic optimism. Subsets of the SAOS that measured, collective teacher efficacy, faculty trust in parents and students and academic emphasis were also found to be highly reliable (Sims, 2011).

Summary

According to Hoy (2012), he and his colleagues have spent 40 years seeking to find organizational properties that are as powerful as socioeconomic status has proven to be in predicting student achievement. In 2006, Hoy et al studied 96 high schools in Ohio and found academic optimism, named after the positive environment that exists with high levels of collective teacher efficacy, faculty trust in students and parents and academic emphasis, to be the potent construct that is a significant predictor of student success. The positive climate of a school resulting from teachers who emphasize or push for academic excellence, who believe all students can learn and who work cooperatively and collaboratively with students and parents, promotes optimism and promotes success.

A review of the theoretical foundations, related literature and current research on academic optimism, suggests that the variables comprising this general construct are certainly worthy of examination when comparing the effectiveness of schools in an ever increasing time of accountability. An examination of the relationship between academic optimism and student achievement, when controlling for SES, may widen the lens of

educators, lawmakers and stakeholders to see variables beyond test scores and to discover a framework of improvement that is within a faculty's locus of control. The variables of academic optimism (collective teacher efficacy, faculty trust in students and parents, and academic emphasis) may offer educators the magic formula for success by analyzing the collective efforts of the faculty as a whole as it strives to accomplish its goals and mission.

CHAPTER 3

METHODOLOGY

With over a decade of scrutiny and accountability beginning with the NCLB legislation of 2001, low performing schools have educational leaders, especially principals, preoccupied with whether their school makes adequate yearly progress (AYP). As a result of intense accountability, a mindset shift among educational leaders appears to have occurred from one that develops a healthy organization with the core of teaching and learning at the forefront, to one that pushes for adequate test scores to avoid the label of “needs or program improvement”, an undesirable designation for schools whose students did not achieve adequate yearly progress required since NCLB of 2001. Many educational leaders complain comparison practices are unfair while others search diligently for answers regarding why their students underachieve. Seeking a formula or framework for success that is within their locus of control to enhance student learning becomes a priority for the latter group of motivated educational leaders. It is this group of leaders that this researcher desires to assist with the current study.

Research Design

The purpose of this quantitative, non-experimental study was to investigate the relationship between academic optimism (AO) of schools (comprised of three variables: collective teacher efficacy (CTE) faculty trust in parents and students (FT) and academic emphasis (AE)) and student achievement when controlling for socioeconomic status (SES). According to Creswell (2009), once a problem has been identified, it is best addressed by understanding what factors or variables influenced the outcome. By understanding what factors influenced or related to the outcome, the researcher is better

able to understand the problem (Creswell, 2009). It is this idea that is behind the motivation of many educators who are seeking to identify a magic formula for success, particularly those educators who are employed in schools identified as “needs or program improvement”, a problem such as Creswell (2006) may have been referring to that requires attention. Without understanding the factors that influenced the problem associated with underachieving students and low scores on high stakes testing, the educators within these schools will not be able to understand the problem.

Through survey data, a correlational analysis was conducted to determine if a significant statistical relationship exists between the independent variable (academic optimism (AO), comprised of CTE, FT, and AE) and the dependent variable (student achievement, comprised of the percentage of students who met or exceeded expectations on the Criterion Referenced Competency Tests (CRCT)), while controlling for SES. Patton (2002) expressed advantages in a quantitative approach using survey data. The reaction of many people through the use of a survey which includes a limited number of questions facilitates a comparison and statistical aggregation of the data that leads to a statistical picture that is quite powerful (Patton, 2002). DeVaus (2022) added that by using survey research, which is a structured approach to data collection and analysis, there will be reliance on the logic that variations in one construct or variable is matched with variations in other constructs or variables.

The focus of this study was on the school organization as a collective group or whole and not the individual teachers. The study was conducted to provide insight into important organizational factors for school effectiveness as related to overall school wide student achievement data. By finding a significant correlation, the researcher hopes to

provide educators with areas of focus within their locus of control that may be related to the factors or variables that influence outcomes as Creswell (2009) suggests. Figure 3.1 is an adaptation of the theoretical model used by Hoy et al (2006) that reflects the current study:

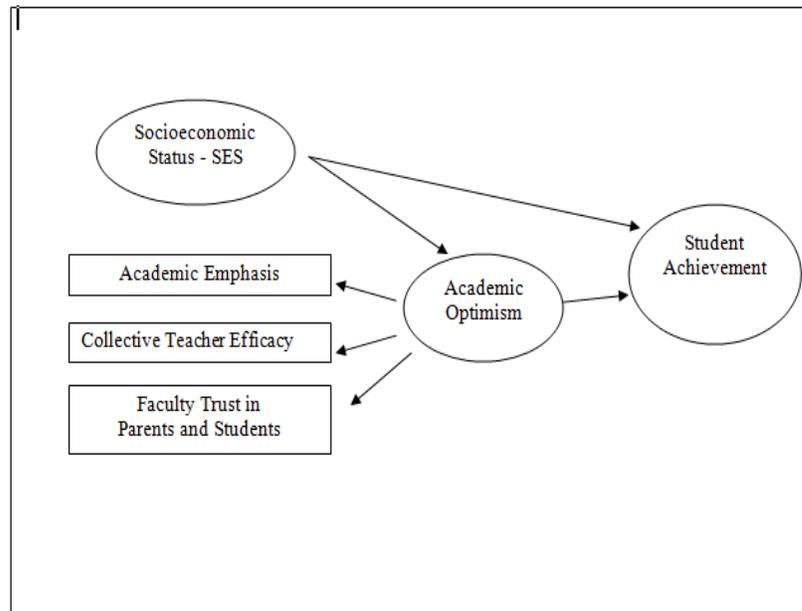


Figure 3.1. Theoretical Model of factors associated with academic optimism that influences student achievement. Adapted for current study from “Academic Optimism of schools: a force for student achievement” by W. Hoy, C. Tarter, and A. Woolfolk-Hoy, 2006, *American Educational Research Journal*, 43, p. 433.

Population Sample

A convenience sample of four middle schools from two school districts from the southeastern region of the state of Georgia was used. It is acknowledged that narrowing the location of the study is considered a delimitation of the study. Student and faculty compositions, school sizes and the sample number of schools requires caution in the ability to generalize results. Participating schools were representative of typical middle

schools in the state of Georgia. Data on SES (determined by the number of students eligible to receive free and/or reduced priced lunches) varied among schools, but was also representative of middle schools in the state of Georgia.

Participants of the study were recruited through a confidential and anonymous process. Participants with a minimum of one year experience in the school were selected and were guaranteed that neither names nor names of schools would be used in the study. By protecting participant names and names of schools, the researcher assumed more honest responses to survey items would be provided. Results of the overall study would be made available to participating schools upon request, but results for individual schools would not be identified.

Instrumentation

Data used was collected from the School Academic Optimism Survey (SAOS; see Appendix A). The SAOS measured AO and the sub-constructs of academic optimism (collective teacher efficacy, faculty trust in parents and students and academic emphasis) and is comprised of 30 questions using a Likert scale format. Tables 1-3 below outline the numbers on the School Academic Optimism Survey (SAOS) that measure each sub-construct: CTE, FT, and AE.

Table 1 shows items 1-12 of the SAOS that measures collective teacher efficacy (CTE), defined as the judgment or belief of teachers that the faculty as a whole can organize and execute the actions required to have positive effects on students (Goddard, Hoy & Woolfolk-Hoy, 2000). Items 1-12 are given a Likert score from 1-6 with “1” representing *Strongly Disagree* and “6” representing *Strongly Agree*. According to the scoring guide provided for the SAOS by Hoy (2012), the following items (3, 4, 8, 9, 11,

12) are reverse scored for the collective teacher efficacy (CTE) construct, meaning 1=6, 2=5, etc. (See Appendix B).

Table 1: Items 1-12 of SAOS measuring Collective Teacher Efficacy (CTE)

Item #	Item	Scale 1-6 Strongly Disagree Strongly Agree
1	Teachers in this school are able to get through to the most difficult teachers.	(1)(2)(3)(4)(5)(6)
2	Teachers here are confident they will be able to motivate their students	(1)(2)(3)(4)(5)(6)
3	If a child doesn't want to learn teachers here give up.	(1)(2)(3)(4)(5)(6)
4	Teachers here don't have the skills needed to produce meaningful results.	(1)(2)(3)(4)(5)(6)
5	Teachers in this school believe that every child can learn.	(1)(2)(3)(4)(5)(6)
6	These students come to school ready to learn.	(1)(2)(3)(4)(5)(6)
7	Home life provides so many advantages that students are bound to learn.	(1)(2)(3)(4)(5)(6)
8	Students here just aren't motivated to learn.	(1)(2)(3)(4)(5)(6)
9	Teachers in this school do not have the skills to deal with student disciplinary problems.	(1)(2)(3)(4)(5)(6)
10	The opportunities in this community help ensure that these students will learn.	(1)(2)(3)(4)(5)(6)
11	Learning is more difficult at this school because students are worried about their safety.	(1)(2)(3)(4)(5)(6)
12	Drug and alcohol abuse in the community make learning difficult for students here.	(1)(2)(3)(4)(5)(6)

Table 2 shows items 13-22 of the School Academic Optimism Survey (SAOS) that measures faculty trust in parents and students (FT) defined as a willingness to be vulnerable to another party based on the confidence that that party is benevolent, reliable, competent, honest, and open (Hoy and Tschannen-Moran, 2003). Items 13-22 of the

SAOS were also given a Likert scale score of 1-6 with “1” representing *Strongly Disagree* to “6” representing *Strongly Agree*. According to the scoring guide provided for the SAOS by Hoy (2012), number 22 is the only item that is reverse scored for the faculty trust in parents and students (FT) construct with 1=6, 2=5, etc. (See Appendix B).

Table 2: Items 13-22 of SAOS measuring Faculty Trust in Parents and Students

Item #	Item	Scale	
		Strongly Disagree	Strongly Agree
13	Teachers in this school trust their students.	(1)	(2)(3)(4)(5)(6)
14	Teachers in this school trust the parents.	(1)	(2)(3)(4)(5)(6)
15	Students in this school can be counted upon to do their work.	(1)	(2)(3)(4)(5)(6)
16	Parents in this school are reliable in their commitments.	(1)	(2)(3)(4)(5)(6)
17	Students in this school can be counted upon to do their work.	(1)	(2)(3)(4)(5)(6)
18	Teachers can count upon parental support.	(1)	(2)(3)(4)(5)(6)
19	Teachers here believe what parents tell them.	(1)	(2)(3)(4)(5)(6)
20	Teachers think that most of the parents do a good job.	(1)	(2)(3)(4)(5)(6)
21	Teachers can believe what parents tell them.	(1)	(2)(3)(4)(5)(6)
22	Students here are secretive.	(1)	(2)(3)(4)(5)(6)

Table 3 shows items 23-30 of the SAOS that measures academic emphasis (AE) defined as the extent to which a school is driven by a quest for academic excellence—a press for academic achievement (Hoy and Miskel, 2005). Items 23-30 measuring AE were given a Likert scale score from 1-4 with “1” representing *Rarely Occurs* and “4” representing *Very Often*. According to the scoring guide for the SAOS provided by Hoy

(2012), no items measuring academic emphasis (AE) are reverse scored (See Appendix B).

Table 3: Items 23-30 of SAOS measuring Academic Emphasis

Item #	Item	Scale 1-4			
		Rarely Disagree	Sometimes	Often	Very Often
23	The school sets high standards for performance.	(1)	(2)	(3)	(4)
24	Students respect others who get good grades.	(1)	(2)	(3)	(4)
25	Students seek extra work so they can get good grades.	(1)	(2)	(3)	(4)
26	Academic achievement is recognized and acknowledged by the school.	(1)	(2)	(3)	(4)
27	Students try hard to improve on previous work.	(1)	(2)	(3)	(4)
28	The learning environment is orderly.	(1)	(2)	(3)	(4)
29	The students in this school can achieve the goals that have been set for them.	(1)	(2)	(3)	(4)
30	Teachers in this school believe their students have the ability to achieve academically.	(1)	(2)	(3)	(4)

The SAOS was found by Sims (2011) to have high reliability for academic optimism with a coefficient of .92 and high reliability for each of the sub-constructs with coefficients for collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE), at .77, .91 and .81, respectively.

Data Collection

Superintendents of the two school districts received a letter requesting participation of the middle schools in their district. Once approval was obtained, the principals of the schools received an electronic letter requesting their school's

participation in the study. A request was made for the principal to electronically distribute surveys to faculty members using school web addresses. A brief explanation of the study was provided along with the informed consent letter. Participants were informed that by completing and submitting the online survey which was estimated to take between 10-15 minutes, they were consenting to participate in the study. To promote better participation from one of the participating schools, the researcher attended a faculty meeting and collected completed surveys.

Current data on SES, derived from the percentages of students who were eligible to receive free and/or reduced priced lunches, and current achievement data, based on the percentage of students who passed the state mandated assessments used for accountability, was made available to the researcher by principals and/or the superintendent who had access to the state longitudinal data system (SLDS) for their schools. For achievement, students were assessed using the Criterion-Referenced Competency Tests (CRCT) which are designed to measure how well students acquire the skills and knowledge described in the state adopted curriculum (www.doe.k12.ga.us, 2012). Scores on the CRCT of 800 and above are considered passing or meeting expectations. School status (whether the school met standards for AYP or whether they are designated as “needs improvement” for not meeting the NCLB requirements for AYP) in the 2011-12 school term was also provided by principals and/or the superintendent through the state longitudinal data system (SLDS).

Data Analysis

The research questions were examined by calculating the descriptive and inferential statistics for each of the variables. The data was calculated using the

Statistical Package for Social Sciences (SPSS). Reliabilities of the measures were also calculated to support previous findings of internal consistency for the School Academic Optimism Survey (SAOS). ANOVAs, bivariate correlations and linear regressions were used in the data analysis. Tests were conducted to determine if a correlation exists between the independent variable (academic optimism and its constructs) and the dependent variable (student achievement in reading and math) while controlling for SES. Descriptive and inferential statistics were also utilized to analyze the overarching research question: Does a relationship exist between academic optimism (AO) and student achievement, when controlling for SES? In addition, the following subquestions were analyzed for significance:

- 1) Does a relationship exist between collective teacher efficacy (CTE) and student achievement, when controlling for SES?
- 2) Does a relationship exist between faculty trust in parents and students (FT) and student achievement, when controlling for SES?
- 3) Does a relationship exist between academic emphasis (AE) and student achievement, when controlling for SES?

Summary

Educational leaders, especially principals, are under intense scrutiny and accountability for student achievement since lawmakers passed the NCLB legislation in 2001. The pressure to perform on high stakes testing appears to have caused many educational leaders to shift their focus, to complain about unfair comparison practices and possibly worry about losses that may occur as a result of this intense scrutiny, such as losing federal funding, losing community and parental stakeholder support and possibly

even losing employment in education as leaders. By focusing more on test scores, leaders may have neglected developing a healthy organization that may enhance and possibly even predict student achievement. According to the requirements of NCLB of 2001, underperforming schools may receive the unwanted designation of “needs/program improvement” as opposed to “making AYP or adequately yearly progress”. The designation of “needs/program improvement” requires leaders to seek answers for lower student achievement in their schools. It requires the development of a plan, a framework for improvement that is within their locus of control to enhance student achievement.

A convenience sample of four middle schools located in the southeastern part of the state of Georgia was used in this study for the purpose of determining whether a relationship exists between academic optimism (AO), including its variables of collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE), the independent variable(s), and student achievement, the dependent variable, while controlling for SES.

Teachers, who have been part of the school’s faculty for at least one school year, anonymously completed the School Academic Optimism Survey or SAOS (30 item Likert-type survey) and provided responses regarding their perceptions of the overall climate of the school and the collective efforts of the faculty pertaining to attitudes, beliefs and behaviors of teachers. Items on the SAOS are designed to measure individually the sub-constructs of collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE) and provide an overall level of academic optimism for each school.

A significant, positive correlation between the level of academic optimism in schools and student achievement will provide further support for the general construct of academic optimism as a framework within an educator's locus of control to develop a healthy organization to enhance student achievement. By controlling for SES, the researcher is hoping to reveal that the level of academic optimism in a school matters as much as SES when analyzing and/or predicting student achievement.

CHAPTER 4

RESULTS

The study reported here examined the construct of academic optimism, its sub-constructs of collective teacher efficacy, faculty trust in students and parents and academic emphasis, and the relationships to these constructs on student achievement while controlling for socioeconomic status (SES). The purpose of the study was to provide educational leaders with a framework to improve school organizational health leading to improvements in student achievement.

Since 2001 and the implementation of President Bush's No Child Left Behind Act, increased accountability leading to potential losses including federal funding, community and parental stakeholder support and possibly continued employment as a leader has many educators mired in frustration, while others search diligently for the magic formula required to receive the designation of making "adequately yearly progress" as opposed to the dreaded "needs/program improvement" label. Some educators complain of unfair comparison practices such as comparing schools with low SES to those with high SES, while others are motivated to address the lower achievement of their students directly by means within their locus of control.

While the field of education promotes the use of leaders to effectively facilitate best practices and teachers to effectively teach so students will learn optimally, this study offers attention to the school as a healthy organization designed to promote overall effectiveness going beyond teachers and leaders or curriculum and instruction, and focusing on variables of school expectations, the overall attitudes, beliefs and behaviors

of leaders, teachers, parents and students for success. It is hoped that attention to the level of academic optimism within a school is vital to the magic formula for success.

This chapter is organized by presenting the research questions for the study. The design of the research is presented along with the demographic profile of the respondents that yielded the findings and data analysis. Responses to the research questions will be provided followed by a summary which answers the overarching question.

Research Questions

The overarching question for this study is: Does a relationship exist between academic optimism (AO) and student achievement when controlling for SES?

Subquestions for this study are as follows:

- 1) Does a relationship exist between collective teacher efficacy (CTE) and student achievement when controlling for SES?
- 2) Does a relationship exist between faculty trust in parents and students (FT) and student achievement when controlling for SES?
- 3) Does a relationship exist between academic emphasis (AE) and student achievement when controlling for SES?

Research Design

The research design was quantitative using survey data from a convenience sample of four middle schools located in the southeastern part of Georgia. Through survey data, specifically the School Academic Optimism Survey (SAOS), a correlational analysis was conducted to determine if a significant statistical relationship exists between the independent variable (academic optimism comprised of collective teacher efficacy, faculty trust in parents and students and academic emphasis) and the dependent variable

(student achievement in reading and math), while controlling for socioeconomic status.

The bivariate correlational analysis using Pearson's r was followed by ANOVAs to further examine the relationships. Several linear regression analyses were then conducted to examine predictor variables. SPSS was used to calculate and analyze the data.

Demographic Profile of the Respondents

Table 4 presents the demographic information of the four participating schools in the convenience sample. The combined percentage of those students who met or exceeded passing scores on the Criterion-Referenced Competency Tests (CRCT) administered in the spring of 2012 is provided in the content areas of Reading and Math for each school. The percentage was derived based on the number of students who took the test which is also presented in Table 4. The percentage of economically disadvantaged students (those students who were eligible to receive free and/or reduced priced lunches) is presented and is used as a measure of socioeconomic status (SES).

Additional demographic information is provided with regard to whether the participating school is designated as a Title I school for which they receive additional federal funding and whether they met "adequate yearly progress" for the 2011-12 school year. Data for the state of Georgia is also provided for comparison purposes.

The demographics provided reveal that all of the four schools exceeded the state percentage of middle schools that met or exceeded expectations on the CRCT with the exception of school MS3 in the area of math. Three of the four schools exceeded the state average for economically disadvantaged students. All four schools met AYP and all received Title I federal funding.

Table 4: Demographics and Achievement Data for Schools

Schools Spring 2012	#of Respondents	Reading CRCT % M&E	Math CRCT % M&E	% of Students Econ. Disadv.	# of Students Tested		Title 1 Status	Met AYP
					R	M		
MS1	21	97%	90%	62.99%	554	547	Y	Y
MS2	18	97%	91%	68.52%	715	713	Y	Y
MS3	50	95%	77%	78.24%	579	583	Y	Y
MS4	39	97%	95%	44.50%	950	961	Y	Y
Georgia	128	93%	83%	57.40%	742,600	739,230		

Findings and Data Analysis

According to Hoy (2010.), the typical score for academic optimism for a school is 500. When compared to typical schools, a score of 650 is considered very high, while a score of 350 would be considered very low with an overall pessimistic view on academic optimism (Hoy, 2010). Table 5 represents the descriptive statistics of the schools including means and standard deviations for each of the sub-constructs as well as overall academic optimism. Standard scores for each of the four participating schools were computed from the formula provided in the SAOS scoring guide and are used to provide ranges when compared to the normal distribution (Hoy, 2010).

Results for the overall level of academic optimism when compared to the normal distribution for schools follows: school MS2 scored as high as or higher than 97% of the schools in the normal distribution for overall level of academic optimism; school MS4 was also high with a score as high or higher than 84% of the distribution; and school MS1 and school MS3 reported typical scores for academic optimism that fell within the average range when compared to the normal distribution. Table 6 provides analysis of the means by schools for each of the sub-constructs provided in Table 5.

Table 5: Descriptive Statistics of the Schools

Sch	CTE			FT			AE			AO			Range to N. Dist.
	M	SD	SS	M	SD	SS	M	SD	SS	M	SD	SS	
MS1	2.99	.32	206.06	3.92	.84	569.23	3.42	.38	757.69	3.42	.38	510.99	Avg.
MS2	4.67	.63	715.15	4.20	.74	641.02	3.53	.30	800.00	4.31	.52	718.72	>97%
MS3	4.25	.61	587.87	3.63	.84	494.87	3.14	.40	650.00	3.75	.58	577.58	Avg.
MS4	4.51	.70	666.66	3.94	.85	574.36	3.21	.54	676.92	3.97	.66	639.31	>84%

Table 6 provides an analysis of the sub-constructs (CTE, FT, and AE) for each school. Scores for school MS1 indicate that while collective teacher efficacy is low, faculty trust in students and parents is average and academic emphasis is very high. Scores for school MS2 indicate that CTE is very high, FT is high and AE is very high. Scores for school MS3 indicate that CTE is average, FT is below average and AE is above average. Scores for school MS4 indicate that CTE is above average, FT is average and AE is above average. Results suggest that since all schools were average and above in overall level of academic optimism, lower scores in one area may be compensated by higher scores in another to create an overall optimistic view.

Results also show that school MS2 scored the highest for each variable associated with academic optimism. When compared to achievement, the only school scoring slightly higher in achievement over school MS2 was school MS4 that had the lowest percentage of economically disadvantaged students at less than 50% compared to school MS2 with 68%.

Table 6: Analysis of Sub-constructs compared to Normal Distribution

Sch	CTE	Range	FT	Range	AE	Range
MS1	206.06	<97% Low	569.23	Average	757.69	>97% - Very High
MS2	715.15	>97% Very High	641.02	>84% High	800.00	>97% - Very High
MS3	587.87	Average	494.87	<84% Below Average	650.00	>84% - Above Average
MS4	666.66	>84% Above Average	574.36	Average	676.92	>84% Above Average

In this study, the total number of respondents (faculty at all schools) is the unit of analysis. Although studies of overall school effectiveness often utilize methods to account for individual student and individual teacher outcome data, this data was unavailable for this study.

Table 7 presents the descriptive statistics for all the variables in this study including ranges, minimum and maximum scores as well as means and standard deviations. All variables that comprise academic optimism (AO) including collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE) as well as the overall level of academic optimism (AO) are presented. Descriptive statistics are also presented for student achievement in reading and math and SES for the schools.

Table 7: Descriptive Statistics of the Variables

Variables	Cases	Range	Minimum	Maximum	Mean	Std. Dev.
CTE	128	3.58	2.25	5.83	4.18	.82
FT	128	3.80	1.60	5.40	3.85	.85
AE	128	2.25	1.75	4.00	3.26	.45
AO	128	3.00	2.20	5.20	3.82	.61
Reading Achievement	128	2.00	95.00	97.00	96.22	.98
Math Achievement	128	18.00	77.00	95.00	86.58	7.9
SES	128	33.74	44.50	78.24	64.09	14.13

The alpha reliability of the School Academic Optimism survey (SAOS) used is listed in Table 8. Scores at or above .70 would indicate sufficient internal reliability for research purposes (deVaus, 2002). The SAOS which measured academic optimism is a 30-item Likert type survey and was found to be highly reliable, with an overall alpha coefficient of .92. Sub-constructs of the SAOS included measures of collective teacher efficacy (CTE), faculty trust in parents and students (FT), and academic emphasis (AE). An analysis suggests high reliability for all sub-constructs (CTE, FT, and AE) with alpha coefficients of .78, .90, and .83, respectively. These results are consistent with previous findings of high reliability for the SAOS and individual sub-constructs it measures.

Table 8: Alpha Reliabilities by Scale

Scale	Cases	Items	Alpha Coefficients
CTE	128	12	.78
FT	128	10	.90
AE	128	8	.83
AO	128	30	.92

In Table 9, correlations among all variables examined in the study are provided. A positive correlation indicates that as one variable increases, the other does also, while a negative correlation indicates that as one variable increases, the other decreases. The

closer the correlation coefficient to +1.00, the stronger the positive and direct relationship (deVaus, 2002). According to deVaus (2002), 0 to .3 (-0.3) suggests a weak, positive (negative) relationship, .3 to .7 (-.3 to -.7) is a moderate positive (negative) relationship and .7 to 1 (-.7 to -1) is a strong positive (negative) relationship.

In Table 9, the variables (CTE, FT, and AE) that comprise the overall construct of academic optimism (AO) were shown to have significant, positive correlations with each other and AO at the .01 level of significance meaning as one construct increases, the others do as well. The analysis of the correlation matrix indicates that the relationships between AO and CTE ($r=.85$), AO and FT ($r=.88$), and AO and AE ($r=.72$) were all strong, positive correlations. The relationships between AE and CTE ($r=.39$), AE and FT ($r=.69$) and FT and CTE ($r=.53$) were moderate, positive correlations. Results suggest the sub-constructs are intertwined and interrelated as Hoy et al (2006) suggests since the higher the level of academic optimism (AO), the higher the level of collective teacher efficacy, faculty trust and academic emphasis.

Table 9 also shows that student achievement in reading and math content areas was also found to be statistically correlated with each other ($r=.97$) at the .01 level suggesting a strong, positive correlation. Weak but statistically significant, positive correlations at the .05 level of significance were noted between reading achievement and FT ($r=.21$), reading achievement and AE ($r=.21$) and math achievement and FT ($r=.20$). Results suggest faculty trust in parents and students is positively related to achievement in both reading and math content areas. As faculty trust increases, reading and math achievement also increases and vice versa. Also, as reading achievement increases, the level of academic emphasis increases.

Interestingly in Table 9, results indicate that socioeconomic status (SES) and achievement in both reading and math is negatively correlated at the .01 level of significance. SES and reading achievement ($r=-.80$) and SES and math achievement ($r=-.91$) were strong negative correlations. This suggests that as reading and math achievement increases, SES decreases, possibly revealing support for other factors contributing to achievement over SES.

Table 9: Correlations Among All Variables

Variable	Correlations						
	1	2	3	4	5	6	7
1. CTE	---						
2. FT	.535**	---					
3. AE	.386**	.691**	---				
4. AO	.854**	.880**	.720**	---			
5. Reading Achievement	-0.70	.214*	.212*	.103	---		
6. Math Achievement	.032	.200*	.158	.140	.974**	---	
7. SES	-.089	-.133	-.033	-.115	-.805**	-.911**	---
Mean	4.18	3.85	3.26	3.83	96.22	86.58	64.09
SD	.82	.85	.45	.61	.98	7.91	14.13

Note. N = 128

** $p < .01$; * $p < .05$

In Tables 10-19, linear regressions were calculated to analyze the relationships and to determine if the independent variables improve the accuracy in predicting the dependent variable of student achievement. According to deVaus (2002), regression analysis “estimates the impact of one variable on another, evaluates the relative impact of various independent variables and predicts the value of the dependent variable under various conditions” (p. 364). The regression coefficients (b), standard error, t statistic, and the significance are presented. A statistical test of the change in R squared was also used to determine the importance of AO and its sub-constructs (CTE, FT, and AE) on student achievement.

Any negative findings for the sub-constructs are likely a function of the multicollinearity of the independent variable. The bivariate correlations also establish the unique relationships of the variables of academic optimism to reading achievement.

In Tables 10 and 11, student achievement in the reading and math content areas, was regressed on the three variables that comprise academic optimism (AO): collective teacher efficacy (CTE), faculty trust in students and parents (FT), and academic emphasis (AE). This data is provided as a means of comparing relationships of the construct of academic optimism and its sub-constructs on student achievement prior to controlling for SES.

In Table 10, the regression analysis for reading achievement, the probability of the F statistic (4.70) for the overall regression relationship for collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE) is $<.01$ at $.004$ which indicates a statistically significant relationship between the set of all independent variables that comprise academic optimism and reading achievement.

An analysis of each variable suggests both CTE and FT are statistically associated with reading achievement since the probability of the t statistic for CTE (-2.59) for the b coefficient (-.313) is less than or equal to the $.01$ level of significance at $.01$. The t statistic for FT (2.04) for the b coefficient (.303) is less than the $.05$ level of significance at $.04$. AE is not statistically associated with reading achievement since the probability of the t statistic (1.12) for the b coefficient (.285) is greater than the $.05$ level of significance at $.26$. Results of the regression analysis shows that as CTE and FT increases, so too does reading achievement. AE does not seem to be related to reading achievement once CTE and FT are taken into account. The R square change statistic when adding the

variables of AO, reduces the error in predicting student achievement by 10% suggesting there is improvement in the relationship between AO and student achievement in reading.

Table 10: Regression of Student Achievement in Reading on Constructs of AO

Predictor Variables	b	se	95% CI	t
(constant)	95.43	.659	94.125, 96.73	144.77
CTE	-.313	.121	-.553, -.074	-2.59**
FT	.303	.149	.009, .598	2.04*
AE	.285	.255	-.219, .789	1.12

Note. $R^2 = .102$, adj. $R^2 = .080$., $F = 4.70$, $df = 3$; $n = 128$.

* $p < .05$, ** $p < .01$

In Table 11, math achievement was regressed on the constructs of AO. The probability of the F statistic (2.13) for the overall regression relationship for collective teacher efficacy (CTE), faculty trust in parents and students (FT) and academic emphasis (AE) is greater than the .05 level of significance at .10 suggesting there is not a statistically significant relationship between the set of all independent variables that comprise academic optimism and math achievement.

An analysis of each variable reveals the probability of the t statistic for CTE (-1.03), FT (1.72), and AE (.344) for the b coefficients (-1.03, 2.13,.729) are greater than the .05 level of significance at (.31, .08, and .73, respectively). Results of the regression analysis show that AO and its sub-constructs of (CTE, FT, and AE) do not seem to be related to math achievement. The R square change statistic when adding the variables of AO does not reduce the error in predicting student achievement in math suggesting there is no improvement in the relationship between AO (comprising CTE, FT, and AE) and student achievement in math.

Table 11: Regression of Student Achievement in Math on Constructs of AO

Predictor Variables	b	se	95% CI	t
(constant)	80.30	5.48	69.46, 91.15	14.65
CTE	-1.03	1.00	-3.02, .958	-1.03
FT	2.13	1.24	-.316, 4.58	1.72
AE	.729	2.12	-3.46, 4.92	.344

Note. $R^2 = .049$, adj. $R^2 = .03$, $F = 2.13$, $df = 3$; $n = 128$.

* $p < .05$.

To address the research sub-questions for this study, Tables 12-19 provide linear regressions calculated to analyze the relationships and to determine if the independent variables of (AO) and its sub-constructs (CTE, FT, and AE) will improve the accuracy in predicting student achievement, when controlling for SES.

In Table 12, a regression analysis was conducted to determine the effect of collective teacher efficacy (CTE) on student achievement in reading, while controlling for SES. The probability of the F statistic (125.77) for the regression relationship of all independent variables (SES and CTE) is <0.001 at .000. Results suggest there is a statistically significant relationship between the independent variables (SES and CTE) and reading achievement. For the independent variable (SES), the probability of the t statistic (-15.80) for the b coefficient (-.057) is .000 which is less than the .01 level of significance. For the independent variable (CTE), while controlling for SES, the probability of the t statistic (-2.76) for the b coefficient (-.171) is .007 which is also less than the .01 level of significance.

CTE in combination with SES is a very weak predictor of student achievement. The R square change statistic was .020 when adding the CTE variable, reducing the error in predicting reading achievement by 2%. This suggests that there is a very little

improvement in the relationship between the independent variables (SES and CTE) on reading achievement when the predictor variable of CTE is added.

Table 12: Regression of Student Achievement in Reading on Collective Teacher Efficacy and SES

Predictor Variables	b	se	95% CI	t
(constant)	100.57	.37	99.85, 101.29	275.13
SES	-.057	.004	-.064, -.050	-15.80**
CTE	-.171	.062	-.294, -.049	-2.76**

Note. $R^2 = .67$, adj. $R^2 = .66$, $F = 125.77$, $df = 2$; $n = 128$.

* $p < .05$, ** $p < .01$

In Table 13, a regression analysis was conducted to determine the effect of collective teacher efficacy on student achievement in math while controlling for SES. The probability of the F statistic (311) for the regression relationship of all independent variables (SES and CTE) is <0.001 at .000. Results suggest there is a statistically significant relationship between the independent variables (SES and CTE) and math achievement. For the independent variable (SES), the probability of the t statistic (-24.92) for the b coefficient (-.513) is <0.001 which is less than the .01 level of significance. For the independent variable (CTE), the probability of the t statistic (-1.36) for the b coefficient (-.485) is .175 which is greater than the .05 level of significance.

CTE in combination with SES did not show CTE to be a predictor of achievement in math. The R square change statistic was .002 when adding the CTE variable which reduces the error in predicting math achievement by less than 1%. This suggests that there is almost no improvement in the relationship between the independent variables (SES and CTE) on math achievement when the predictor variable of CTE is added.

Table 13: Regression of Student Achievement in Math on Collective Teacher Efficacy (CTE) and SES

Predictor Variables	b	se	95% CI	t
(constant)	121.5	2.1	117.33, 125.96	57.95
SES	-.513	.021	-.553, -.472	-24.92**
CTE	-.485	.356	-1.190, .220	-1.36

Note. $R^2 = .83$, adj. $R^2 = .83$, $F = 311$, $df = 2$; $n = 128$.

* $p < .05$, ** $p < .01$

Table 14 shows the regression analysis conducted to determine the effect of faculty trust in parents and students (FT) on student achievement in reading while controlling for SES. The probability of the F statistic (121) for the regression relationship of all independent variables (SES and FT) is <0.001 at .000. Results suggest there is a statistically significant relationship between the independent variables (SES and FT) and reading achievement. For the independent variable (SES), the probability of the t statistic (-15.01) for the b coefficient (-.055) is <0.001 which is less than the .01 level of significance. For the independent variable (FT), the probability of the t statistic (2.06) for the b coefficient (.126) is .041 which is less than the .05 level of significance.

The regression analysis indicates that FT in combination with SES shows FT to be a very weak predictor of achievement in reading. The R square change statistic of .012 when adding the FT variable reduces the error in predicting reading achievement by 1%. This suggests that there is almost no improvement in the relationship between the independent variables (SES and FT) on reading achievement when the predictor variable of FT is added.

Table 14: Regression of Student Achievement in Reading on Faculty Trust in Parents and Students (FT) and SES

Predictor Variables	b	se	95% CI	t
(constant)	99.24	.356	98.54, 99.95	278.42
SES	-.055	.004	-.062, -.048	-15.01**
FT	.126	.061	.005, .246	2.06*

Note. $R^2 = .66$, adj. $R^2 = .65$, $F = 311$, $df = 2$; $n = 128$.

* $p < .05$, ** $p < .01$

In Table 15, a regression analysis was conducted to determine the effect of faculty trust in students and parents (FT) on student achievement in math while controlling for SES. The probability of the F statistic (319.9) for the regression relationship of all independent variables (SES and FT) is <0.001 at .000. Results suggest there is a statistically significant relationship between the independent variables (SES and FT) and math achievement. For the independent variable (SES), the probability of the t statistic (-24.68) for the b coefficient (-.504) is <0.001 which is less than the .01 level of significance. For the independent variable (FT), the probability of the t statistic (2.21) for the b coefficient (.753) is .029 which is less than the .05 level of significance.

The regression analysis indicates that FT in combination with SES shows FT to be a very weak predictor of achievement in math. The R square change statistic of .006 when adding the FT variable reduces the error in predicting math achievement by less than 1%. This suggests that there is almost no improvement in the relationship between the independent variables (SES and FT) and math achievement when the predictor variable of FT is added.

Table 15: Regression of Student Achievement in Math on Faculty Trust in Parents and Students (FT) and SES

Predictor Variables	b	se	95% CI	t
(constant)	116.0	1.99	112.05, 119.95	58.16
SES	-.504	.02	-.545, -.464	-24.68**
FT	.753	.341	.078, 1.43	2.21*

Note. $R^2 = .837$, adj. $R^2 = .834$, $F = 319.9$, $df = 2$; $n = 128$.

* $p < .05$, ** $p < .01$

In Table 16, a regression analysis was conducted to determine the effect of academic emphasis (AE) on student achievement in reading while controlling for SES. The probability of the F statistic (134.28) for the regression relationship of all independent variables (SES and AE) is <0.001 at .000. Results suggest there is a statistically significant relationship between the independent variables (SES and AE) and reading achievement. For the independent variable (SES), the probability of the t statistic (-15.84) for the b coefficient (-.055) is <0.001 which is less than the .01 level of significance. For the independent variable (AE), the probability of the t statistic (3.69) for the b coefficient (.402) is .000 which is also less than the .01 level of significance.

The regression analysis indicates that AE in combination with SES shows AE to be a very weak predictor of achievement in reading. The R square change statistic of .035 when adding the AE variable reduces the error in predicting reading achievement by almost 4%. This suggests that there is improvement in the relationship between the independent variables (SES and AE) on reading achievement when the predictor variable of AE is added.

Table 16: Regression of Student Achievement in Reading on Academic Emphasis (AE) and SES

Predictor Variables	b	se	95% CI	t
(constant)	98.45	.43	97.60, 99.30	229.09
SES	-.055	.003	-.062, -.048	-15.84**
AE	.402	.109	.187, .618	3.69**

Note. $R^2 = .68$, adj. $R^2 = .68$, $F = 134.28$, $df = 2$; $n = 128$.

* $p < .05$, ** $p < .01$

In Table 17, the regression analysis was conducted to determine the effect of academic emphasis (AE) on student achievement in math while controlling for SES. The probability of the F statistic (345.27) for the regression relationship of all independent variables (SES and AE) is <0.001 at .000. Results suggest there is a statistically significant relationship between the independent variables (SES and AE) and math achievement. For the independent variable (SES), the probability of the t statistic (-25.87) for the b coefficient (-.508) is <0.001 which is less than the .01 level of significance. For the independent variable (AE), the probability of the t statistic (3.67) for the b coefficient (2.25) is .000 which is also less than the .01 level of significance.

The regression analysis indicates that AE in combination with SES shows AE to be a very weak predictor of achievement in math. The R square change statistic of .017 when adding the AE variable reduces the error in predicting math achievement by almost 2%. This suggests that there is slight improvement in the relationship between the independent variables (SES and AE) on math achievement when the predictor variable of AE is added.

Table 17: Regression of Student Achievement in Math on Academic Emphasis (AE) and SES

Predictor Variables	b	se	95% CI	t
(constant)	111.74	2.41	107.02, 116.57	46.36
SES	-.508	.02	-.547, -.469	-25.87**
AE	2.25	.612	1.04, 3.46	3.67**

Note. $R^2 = .847$, adj. $R^2 = .844$, $F = 345.27$, $df = 2$; $n = 128$.

* $p < .05$, ** $p < .01$

Tables 18 and 19 address the overarching question and shows the effects of academic optimism on reading and math achievement, while controlling for SES. In Table 18, the probability of the F statistic (115) for the overall regression relationship of all independent variables (SES and AO) is <0.001 at $.000$. Results suggest there is a statistically significant relationship between the independent variables (SES and AO) and reading achievement. For the independent variable (SES), the probability of the t statistic (-15.04) for the b coefficient (-.056) is <0.001 which is less than the $.01$ level of significance. For the independent variable (AO), the probability of the t statistic (.196) for the b coefficient (.017) is greater than the $.05$ level of significance at $.84$.

The regression analysis indicates that AO in combination with SES shows AO not to be a predictor of achievement in reading. The R square change statistic of $.000$ reduces the error in predicting reading achievement by 0% . This suggests that there is not a statistically significant improvement in the relationship between the independent variables (SES and AO) on reading achievement when the predictor variable of AO is added.

Table 18: Regression of Student Achievement in Reading on AO and SES

Variable	b	se	95% CI	t
(constant)	99.73	.428	98.88, 100.57	232.88
SES	-.056	.004	-.063, -.048	-15.04**
Academic Optimism	.017	.085	-.152, .185	.196

Note. $R^2 = .65$, adj. $R^2 = .64$, $F = 115$, $df = 2$; $n = 128$.

* $p < .05$, ** $p < .01$

In Table 19, the probability of the F statistic (308.3) for the overall regression relationship of all independent variables (SES and AO) is <0.001 at .000. Results suggest there is a statistically significant relationship between the independent variables (SES and AO) and math achievement. For the independent variable (SES), the probability of the t statistic (-24.54) for the b coefficient (-.51) is <0.001 which is less than the .01 level of significance. For the independent variable (AO), the probability of the t statistic (.97) for the b coefficient (.46) is .335 which is greater than the .05 level of significance.

The regression analysis indicates that the independent variable of AO in combination with SES is not a predictor of achievement in math. The R square change statistic of .001 when adding the AO variable reduces the error in predicting reading achievement by 0%. This suggests that there is not a statistically significant improvement in the relationship between the independent variables (SES and AO) on math achievement when the predictor variable of AO is added.

Table 19: Regression of Student Achievement in Math on AO and SES

Variable	b	se	95% CI	t
(constant)	117.37	2.39	112.64, 122.11	49.05
SES	-.51	.02	-.55, -.47	-24.54**
Academic Optimism	.46	.47	-.48, 1.4	.97

Note. $R^2 = .83$, adj. $R^2 = .83$, $F = 308.3$, $df = 2$; $n = 128$

* $p < .05$.

Response to Research Questions

Prior to answering the overarching question, answers to the sub-questions are provided. It is important to note that although un-hypothesized, a few positive findings were indicated for the relationships of the sub-constructs: collective teacher efficacy (CTE), faculty trust in students and parents (FT) and the overall construct of academic optimism (AO), prior to controlling for SES. An analysis of all variables (CTE, FT, and AE) and their relationship to overall academic optimism (AO) was statistically significant suggesting that as one area improves, the others are likely to improve as well. Negative findings with CTE were likely the result of the function of multicollinearity of this independent variable. The bivariate correlations also establish the unique relationships of the variables of academic optimism to achievement.

Also, prior to controlling for SES, the relationship between AO and reading achievement was statistically significant. However, in analyzing the variables individually, CTE and FT had a greater impact on reading achievement, while AE was not found to have a significant impact. In math achievement, none of the variables were found to be significantly related. There was no greater accuracy in predicting math achievement when adding the variables of AO.

When controlling for SES, the responses to the sub-questions for this study are as follows:

- 1) Does a relationship exist between collective teacher efficacy (CTE) and student achievement when controlling for SES?

Results of the analysis suggest a weak, positive relationship between collective teacher efficacy (CTE) and student achievement in reading when controlling for SES.

Although minimal at 2%, the accuracy in predicting achievement in reading increases by adding the CTE variable. Results did not suggest a statistically significant relationship between CTE and math achievement. There is almost no improvement (<1%) in the relationship on math achievement when the predictor variable of CTE is added.

- 2) Does a relationship exist between faculty trust in students and parents (FT) and student achievement when controlling for SES?

Results of the analysis suggest a weak, positive relationship between faculty trust in students and parents (FT) and student achievement in both reading and math when controlling for SES at the .05 level of significance. Although minimal at approximately 1%, the accuracy in predicting achievement in reading and math increases slightly by adding the FT predictor variable.

- 3) Does a relationship exist between academic emphasis (AE) and student achievement when controlling for SES?

Results of the analysis suggest a weak, positive relationship between AE and student achievement in both reading and math when controlling for SES. Improvement percentages of approximately 4% in reading and 2% in math, suggest that predicting achievement in reading and math increases when adding the predictor variable of AE.

Summary

Although un-hypothesized, it should be noted that prior to controlling for SES, a statistically significant relationship was found between all of the independent variables that comprise academic optimism (CTE, FT, and AE) and reading achievement at the .01 level of significance. When adding the AO variable, a 10% reduction in error for predicting student achievement in reading was indicated. When analyzing each variable,

however, AE does not seem to be related to reading achievement once CTE and FT are taken into account. As CTE and FT increase, so too does reading achievement. A statistically significant relationship was not found between all variables that comprise AO and math achievement suggesting no improvement in the relationship exists when adding AO as a predictor variable to math achievement.

The hypothesized, overarching research question in the study is: Does a relationship exist between academic optimism of schools and student achievement when controlling for SES? In analyzing the results, a statistically significant relationship does not exist between overall AO and student achievement in both reading and math achievement when controlling for SES. When adding academic optimism (AO) as a predictor variable, there is 0% change in the relationship suggesting that AO does not improve the accuracy of predicting student achievement.

CHAPTER 5

DISCUSSION

There is no scarcity of information as to what characteristics leaders, teachers, and students must possess that may lead to student achievement. The research on the characteristics of schools as organizations leading to student achievement is not as voluminous, however, and can be described as fragmented with researchers studying a multitude of constructs with very little cohesiveness existing among the many variables. Hoy et al (2006) presented the construct of academic optimism (AO) of schools and found the organizational properties of collective teacher efficacy (CTE), faculty trust in students and parents (FT) and academic emphasis (AE) to be strong predictors for student achievement in high school when controlling for socioeconomic status (SES), previous achievement and other demographic variables.

Given the current, intense focus on accountability associated with NCLB (2001), primarily related to test scores, the arguably inappropriate comparisons of schools, especially in comparing high SES schools to low SES schools, and the possible lack of focus on overall school health, the researcher examined the construct of academic optimism and its sub-constructs comprised of collective teacher efficacy, faculty trust in students and parents, and academic emphasis in four middle schools located in southeast Georgia.

Specifically, the relationship between academic optimism of schools, its sub-constructs and student achievement, while controlling for SES, was examined to further establish the relationship. Additionally, the relationship of AO, its sub-constructs and

student achievement was examined for the purpose of widening the lens for educators and community stakeholders, and for drawing further attention to overall school organizational health and its effectiveness in contributing to student achievement.

The unit of analysis in this study was the total number of respondents (teachers). Although studies of overall school effectiveness often utilize methods to account for individual student and individual teacher outcome data, this data was unavailable for this study. Through quantitative, survey data, using the School Academic Optimism Survey (SAOS), a correlational analysis was conducted to determine if a significant statistical relationship exists between the independent variable(s) of academic optimism (AO), comprised of collective teacher efficacy (CTE), faculty trust in students and parents (FT), and academic emphasis (AE) and the dependent variable (student achievement in reading and math), while controlling for socioeconomic status. The bivariate correlational analysis using Pearson's r was then followed by analyses of ANOVAs to establish relationships and numerous linear regressions were conducted to examine predictor variables. SPSS was used to calculate and analyze the data.

The remainder of this chapter offers analysis and summarization of the findings. The literature review from chapter 2 is revisited to support the findings and/or implications. Finally, recommendations for future research are discussed.

Analysis of Research Findings

Overall, the analysis of the relationship of academic optimism (AO) of schools and student achievement in reading and math, when controlling for SES, is not statistically significant in this study. The coefficient of determination for AO in reading (.65) and in math (.83) suggests that 65% and 83% of the variance in reading and math

achievement, respectively, is accounted for by SES. With the addition of the AO predictor variable, there was 0% change in the variance for reading and math achievement. In this study, AO does not predict student achievement over SES.

Next, the individual sub-constructs of AO were analyzed for significance. An analysis of the relationship between collective teacher efficacy (CTE) and student achievement in reading, when controlling for SES, was statistically significant at the .01 level. The variance accounted for by SES in achievement was 67% for reading and 83% in math. A 2% improvement in student achievement was suggested when adding the CTE predictor variable for reading. The relationship between math achievement and CTE was not statistically significant. No improvement was suggested when adding the CTE predictor variable.

An analysis of the relationship between student achievement in reading and math and FT was statistically significant for each at the .05 level of significance. However, with variances in achievement of 66% in reading and 84% in math accounted for by SES, only a 1% improvement was suggested when adding the predictor variable of FT to reading and less than 1% improvement in math.

An analysis of the relationship between student achievement in reading and math and AE was statistically significant at the .01 level of significance for both. The variance accounted for by SES in achievement for reading was 68% with a 4% improvement suggested when adding the predictor variable of AE. The variance in achievement accounted for by SES for math was 85% with a 2% improvement suggested when adding the AE predictor variable.

Discussion of Research Findings

In 2006, Hoy et al, found a significant relationship between academic optimism and student achievement when controlling for SES and indicated that AO was a powerful predictor of student achievement. Hoy et al (2006) described the elements of academic optimism (CTE, FT, and AE) as interacting and having transactional relationships made up of three domains: CTE, the cognitive domain, defined as the belief that the faculty as a whole can organize and execute the actions required to have positive effects on students; FT, the affective domain, defined as a willingness to be vulnerable to another party based on the confidence that that party is benevolent, reliable, competent, honest, and open; and AE, the behavioral domain, defined as the extent to which a school is driven by a quest for academic excellence—a press for academic achievement (Goddard, Hoy, and Woolfolk-Hoy, 2000; Hoy and Tschannen-Moran, 2003; Hoy and Miskel, 2005).

Hoy et al (2006) found that with increased levels of collective teacher efficacy, faculty trust in students and parents, and academic emphasis, the variables that comprise academic optimism, the greater the level of student achievement. The findings in this study did not support the research of Hoy and colleagues (2006). While increased levels of CTE, FT and AE improved the relationships for achievement slightly in most cases, the variance in achievement accounted for by SES was a more powerful predictor. Further, the findings of Coleman (1966) regarding the impact of SES on student achievement, was also not supported in this study. A strong, negative correlation between SES and student achievement in reading and math was indicated, suggesting that

the higher the SES, the lower the achievement and vice versa. With the schools in this study having achievement rates slightly above the average reported for middle schools in the state of Georgia, results are more supportive of studies done on 90/90/90 schools defined by Reeves as those schools having 90% of their students eligible for free and /or reduced priced lunches, 90% of the students ethnic minorities and 90% meeting and achieving high standards in achievement (Reeves, 2003). Reeves acknowledged the impact of poverty, linguistic differences and culture on student achievement, but stated that the research was clear on 90/90/90 schools and suggests that other variables that teachers and leaders can control are more influential such as: a focus on academic achievement, clear curriculum choices, frequent assessment of student progress with multiple opportunities for improvement, and emphasis on nonfiction writing and collaborative scoring of student work.

The literature review in chapter 2 offers an explanation and history of academic optimism. Hoy et al (2012) credits Seligman (2006) as laying part of the foundation for his research on academic optimism with Seligman's theory that we operate in workplaces and in schools assuming that success comes from combining talent with desire or motivation, but he presents that failure can occur when talent and desire are present but optimism is lacking. Whether the challenge is meeting the demands that have come with increased accountability since NCLB (2001) or teaching students from low SES households, approaching setbacks as simply setbacks within our personal control yields more positive results for efforts. Academic optimism, as an effective organizational collective property is in direct conflict with a pessimistic view, one that is apathetic and defeating.

CTE and Student Achievement

Goddard and Goddard (2001a) reported that organizations, if they believe they will be successful, are much more likely to pursue activities requested of them. With high standard scores for overall academic optimism, including CTE, high scores in achievement and higher than 60% of students (in 3 of 4 schools in this study) considered economically disadvantaged, it is hard to imagine that these schools would not demonstrate the characteristics of efficacious schools described by Bandura (1997). According to Bandura (1997) efficacious schools, those with high CTE, set higher standards for students behaviorally and academically, use instructional time more wisely, are more resilient to changes in practices and are more proficient in monitoring student progress. Teachers in the four schools studied surely must believe as Goodwin (2004) suggested which is that all students can learn and they “as a whole” believe in their own abilities given the results they have obtained. In this study, student achievement in reading was regressed on CTE and SES. CTE ($B=-.14$, $p<.01$) in combination with SES ($B=-.81$, $p<.01$) showed to be a very weak predictor of student achievement. In math achievement, CTE ($B=-.050$, $p>.05$) in combination with SES ($B=-.92$, $p<.01$) did not show CTE to be a predictor.

FT and Student Achievement

According to Tschannen-Moran and Hoy (2000), schools with high levels of trust among all parties have similar qualities: they are more likely to openly and accurately communicate with each other, they often engage in shared decision making, and demonstrate greater citizenship, meaning they will frequently engage in desirable

behaviors that are not required of them without expecting to be recognized or compensated. Bryk and Schneider (2002) found that schools with high levels of relational trust are more effective with greater improvement noted in achievement. Three of the four schools in this study reported FT in their schools to be average and above average with one reporting FT to be below average.

In this study, student achievement in reading was regressed on FT and SES. However, FT ($B=.11$, $p<.05$) in combination with SES ($B=-.79$, $p<.01$) shows FT to be a very weak predictor of achievement in reading. In math achievement, FT ($B=.08$, $p<.05$) in combination with SES ($B=-.90$, $p<.01$) also shows FT to be a very weak predictor.

AE and Student Achievement

In schools with high levels of AE, the focus on academics is paramount and the overall school climate supports this perspective from administrators to teachers to students (Goddard, Sweetland, and Hoy, 2000). The importance placed on the drive for success must be apparent and emphasized (Goddard, et al 2000). In schools with high levels of AE, teachers engage in behaviors that support this belief and may be sanctioned either formally or informally by norms in the culture of the school when they do not engage in behaviors that push for excellence from the students. Two of the four schools in this study reported above average levels of AE and the other two reported AE to be very high.

In this study, student achievement in reading was regressed on AE and SES. However, AE ($B=.19$, $p<.01$) in combination with SES ($B=-.80$, $p<.01$) shows AE to be a very weak predictor of achievement in reading. In math, AE ($B=.13$, $p<.01$) in combination with SES ($B=-.91$, $p<.01$) also shows AE to be a very weak predictor.

Conclusions

This study examined the relationship between academic optimism of schools and student achievement while controlling for SES. The study also examined the individual sub-constructs of academic optimism (collective teacher efficacy, faculty trust in students and parents, and academic emphasis) and their relationships to student achievement in both reading and math content areas.

The following are the major findings:

- In this study, AO does not appear to be a powerful predictor of student achievement in reading or math content areas.
- Schools in this study were found to be average, above average and very above average in their overall level of academic optimism when compared to the normal distribution of schools.
- Schools in this study performed well academically with three of the four schools having at least 60% of their population eligible to receive free and/or reduced priced lunches.
- Academic Emphasis (AE) was found to have a statistically, significant relationship to both reading and math achievement at the .01 level of significance.
- Faculty trust in students and parents (FT) was found to have a statistically, significant relationship to both reading and math achievement at the .05 level of significance.
- Prior to controlling for SES, no association was found between AO and its sub-constructs (CTE, FT, and AE) in math achievement. However, CTE and FT were statistically associated with reading achievement. Adding these variables,

reduced the error in predicting reading achievement by 10%, suggesting an improvement in the relationship between all variables and reading achievement.

- Overall, the variance in achievement attributed to SES suggested a greater impact than academic optimism in both reading and math.

Implications

Educational leaders looking for the magic formula to get students, particularly those from low SES, to perform academically up to standards should look to the characteristics of the schools brought out by the surveys. All four schools had levels of academic optimism that were at least within the average range suggesting all four operate collectively, as an organization from an optimistic point of view and demonstrate characteristics associated with the general latent construct of academic optimism including its sub-constructs of collective teacher efficacy, faculty trust in students and parents and academic emphasis. This suggests the possibility that stronger relationships among the desirable organizational attributes (collective teacher efficacy, faculty trust in students and parents and academic emphasis) and student achievement would have been indicated with a larger sample size.

It is important to note that while these schools report average to above average levels of academic optimism, three of the four schools had percentages above the state average for students considered economically disadvantaged. If variances in achievement are largely accounted for by SES over academic optimism, possibly related to sample size, results may still suggest that schools with high percentages of low SES students (higher poverty levels) are not necessarily at a disadvantage when compared to

schools with high SES students when variables that contribute to the school as a healthy organization are considered.

While leaders are under intense scrutiny, due to reform efforts and accountability, teachers are also under pressure. When seeking the magic formula for a healthy organization, leaders must facilitate the belief that all students can learn, facilitate the belief that setbacks are simply setbacks that are within our locus of control to respond to with positive results and that it is within the control of the collective body for best results.

Educational leaders could improve collective efficacy and develop an efficacious school by following the guidelines of Cybulski et al (2005) using distributive leadership strategies such as: using data for decision making (verbal persuasion), offering well-thought out professional development opportunities (vicarious experiences) and by placing teachers in positions that will promote individual successes (mastery experiences).

Educational leaders could improve faculty trust by trusting teachers, empowering them and involving them. By the same efforts, teachers could plan activities that openly share and describe expectations for parents, trusting them to assist the teacher and their student, by empowering them and involving them as well.

Educational leaders could improve academic emphasis in the school by developing a culture of high expectations behaviorally and academically, by developing norms that have effective rewards for engaging in expected behaviors that lead to high achievement with the balance of offering sanctions for those who need professional development in carrying out the mission and goals of the school.

Schools with high levels of academic optimism are associated with leaders who demonstrate distributed leadership, and conversely, when leadership was not planned and aligned with practices in the schools, low levels of academic optimism were found (Mascall, Leithwood, Straus, and Sacks, 2008). By analyzing a school's level of academic optimism (including CTE, FT, and AE), an educational leader would be able to assess the health of the organization regarding its willingness to take on the demands and challenges set forth by federal mandates in this age of accountability.

Recommendations

Additional studies could be done to further establish the relationship between academic optimism of schools and student achievement by:

- Utilizing specific student and teacher achievement data for groups of students.
- Including a larger sampling of schools
- Involving schools from metropolitan, urban and rural areas to allow for better generalization of results.

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APPENDIX A

(SCHOOL ACADEMIC OPTIMISM SURVEY(SAOS))

Directions: Please indicate “the degree of” with each of the statements about your school from strongly disagree (1) to strongly agree (6).						Strongly Disagree						Strongly Agree
Your answers are confidential												
1. Teachers in this school are able to get through to the most difficult students.	(1)	(2)	(3)	(4)	(5)	(6)						
2. Teachers here are confident they will be able to motivate their students.	(1)	(2)	(3)	(4)	(5)	(6)						
3. If a child doesn't want to learn teachers here give up.	(1)	(2)	(3)	(4)	(5)	(6)						
4. Teachers here don't have the skills needed to produce meaningful results.	(1)	(2)	(3)	(4)	(5)	(6)						
5. Teachers in this school believe that every child can learn.	(1)	(2)	(3)	(4)	(5)	(6)						
6. These students come to school ready to learn.	(1)	(2)	(3)	(4)	(5)	(6)						
7. Home life provides so many advantages that students are bound to learn.	(1)	(2)	(3)	(4)	(5)	(6)						
8. Students here just aren't motivated to learn.	(1)	(2)	(3)	(4)	(5)	(6)						
9. Teachers in this school do not have the skills to deal with student disciplinary problems.	(1)	(2)	(3)	(4)	(5)	(6)						
10. The opportunities in this community help ensure that these students will learn.	(1)	(2)	(3)	(4)	(5)	(6)						
11. Learning is more difficult at this school because students are worried about their safety.	(1)	(2)	(3)	(4)	(5)	(6)						
12. Drug and alcohol abuse in the community make learning difficult for students here.	(1)	(2)	(3)	(4)	(5)	(6)						
13. Teachers in this school trust their students.	(1)	(2)	(3)	(4)	(5)	(6)						
14. Teachers in this school trust the parents.	(1)	(2)	(3)	(4)	(5)	(6)						
15. Students in this school can be counted upon to do their work.	(1)	(2)	(3)	(4)	(5)	(6)						
16. Parents in this school are reliable in their commitments.	(1)	(2)	(3)	(4)	(5)	(6)						
17. Students in this school can be counted upon to do their work.	(1)	(2)	(3)	(4)	(5)	(6)						
18. Teachers can count upon parental support.	(1)	(2)	(3)	(4)	(5)	(6)						
19. Teachers here believe that students are competent learners.	(1)	(2)	(3)	(4)	(5)	(6)						
20. Teachers think that most of the parents do a good job.	(1)	(2)	(3)	(4)	(5)	(6)						
21. Teachers can believe what parents tell them.	(1)	(2)	(3)	(4)	(5)	(6)						
22. Students here are secretive.	(1)	(2)	(3)	(4)	(5)	(6)						
Directions: Please indicate the degree to which the following Statements characterize your school from Rarely Occurs (1) to Very Often Occurs (4)												
							Rarely Occurs	Sometimes	Often	Very Often		
23. The school sets high standards for performance.	(1)	(2)	(3)	(4)								
24. Students respect others who get good grades.	(1)	(2)	(3)	(4)								
25. Students seek extra work so they can get good grades.	(1)	(2)	(3)	(4)								
26. Academic achievement is recognized and acknowledged by the school.	(1)	(2)	(3)	(4)								
27. Students try hard to improve on previous work.	(1)	(2)	(3)	(4)								
28. The learning environment is orderly.	(1)	(2)	(3)	(4)								
29. The students in this school can achieve the goals that have been set for them.	(1)	(2)	(3)	(4)								
30. Teachers in this school believe that their students have the ability to achieve academically.	(1)	(2)	(3)	(4)								

APPENDIX B
SCORING THE SAOS

I. Collective Efficacy (CE) of the School (items 1-12)

1. First, reverse scores on the following items: 3, 4, 8, 9, 11, 12, that is, score 1=6, 2=5, 3=4, 4=3 5=2, 6=1.
2. Next, compute the average score for each individual on the first 12 items; that is, for each person, sum all the scores on the first 12 items and divide by the number of items for which you have responses.
3. Finally, sum the average individual scores for all teachers and divide by the number of teachers in the school who responded; this is the average collective efficacy (CE) score for the school and will be between 1 and 6.

II. Faculty Trust (FT) in Parents and Teachers (items 13-22)

1. First, reverse scores on item 22, that is, 1=6, 2=5, 3=4, 4=3 5=2, 6=1.
2. Next, compute the average score for each individual on the items 13 through 22; that is, for each person, sum all the scores on those 10 items and divide by the number of items for which you have responses.
3. Finally, sum the average individual scores for all teachers and divide by the number of teachers in the school who responded; this is the average Faculty Trust in Parents and Teachers score (FT) score for the school and will be between 1 and 6.

III. Academic Emphasis (AE) of the School (items 23-30)

1. Score all the items with a score from 1 to 4.
2. Next, compute the average score for each individual on the items 23 through 30; that is, for each person, sum all the scores on those 8 items and divide by the number of items for which you have responses.
3. Finally, sum the average individual scores for all teachers and divide by the number of teachers in the school who responded; this is the average Faculty Trust in Parents and Teachers score (AE) score for the school and will be between 1 and 4.

IV. Compute Academic Optimism Score - Secondary Schools

Appendix B

Create standardized scores (SS) for each component as follows:

- Standard Score for Collective Efficacy (SSCE) = $[100X(CE-3.96)/.33] + 500$
- Standard Score for Trust (SSFT) = $[100X(T-3.65)/.39] + 500$
- Standard Score for Acad. Emphasis (SSAE) = $[100X(AE-2.75)/.26] + 500$

2. Then compute an Academic Optimism Score as follows:

Academic Optimism = $[(SSCE)+(SSFT)+(SSAE)]$ divided by 3

Note: This formula is based on our work of a fairly representative sample of 96 secondary schools from Ohio. (Retrieved from <http://www.waynekhoy.com>)

APPENDIX C

IRB APPROVAL LETTER

Georgia Southern University Office of Research Services & Sponsored Programs Institutional Review Board (IRB)	
Phone: 912-478-0843	Veazey Hall 2021
Fax: 912-478-0719	P.O. Box 8005
IRB@GeorgiaSouthern.edu	Statesboro, GA 30460

To: Pam McKinnon
Dr. Paul Brinson

cc: Charles E. Patterson
Vice President for Research and Dean of the Graduate College

From: Office of Research Services and Sponsored Programs
Administrative Support Office for Research Oversight Committees
(IACUC/IBC/IRB)

Date: 07/30/12

Initial Approval Date: 06/11/12

Expiration Date: 12/31/12

Subject: Status of Application for Approval to Utilize Human Subjects in Research

After a review of your proposed research project numbered **H12471** and titled **"The Relationship Between Academic Optimism in Schools and Student Achievement."** it appears that your research involves activities that do not require full approval by the Institutional Review Board according to federal guidelines. **This project has been approved for Glynn and Ware county school systems.**

According to the Code of Federal Regulations Title 45 Part 46, your research protocol is determined to be exempt from full review under the following exemption category(s):

B2 Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (I) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (II) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that your research is exempt from IRB approval. You may proceed with the proposed research.

Please notify the IRB when you have completed the project by emailing irb@georgiasouthern.edu. Include the date of completion, the number of subjects (records) utilized and if there were any unexpected events related to the subjects during the project. (If none, state no unexpected or adverse events occurred during the conduct of the research.)

Sincerely,



Eleanor Haynes
Compliance Officer