

Examining Relationships between Enabling Structures, Academic Optimism and Student Achievement

by

Karen Anderson

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Approved by

Dr. Frances Kochan, Chair, Wayne T. Smith Distinguished Professor
Department of Educational Foundations, Leadership and Technology

Dr. Lisa Kensler, Assistant Professor

Department of Educational Foundations, Leadership and Technology

Dr. Ellen Reames, Assistant Professor

Department of Educational Foundations, Leadership and Technology

Abstract

The purpose of this study was to examine relationships between enabling structures, academic optimism and student achievement; to determine whether academic optimism served as a mediator between the two and to discover teacher perceptions of the relationship of their success to enabling structures and academic optimism using a mixed methods research design. Student achievement was measured using both criterion-referenced and norm-referenced tests. Manuscripts present the results of both the quantitative and qualitative analyses.

Findings indicated a relationship between academic optimism, enabling structures, and student achievement. In addition, academic optimism appeared to serve as a mediator between enabling structures and norm-referenced assessments but did not correlate with criterion-referenced tests. Teachers identified specific enabling structures as facilitating successful implementation of their duties. They also identified elements of academic optimism as enabling them to be successful. Proactive administrator action was cited repeatedly by teachers as a factor which seemed to have a positive impact on their work.

This study serves as the second inquiry to establish connections between enabling structures, academic optimism and student achievement, measured at the school level, in elementary schools. The use of mediation also offers a unique perspective to the literature, and the qualitative aspect of the study delineates specific structures which appear to facilitate teacher success.

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CHAPTER 1: INTRODUCTION

This chapter provides an overview of the study. It begins with background information foundational to this inquiry. An explanation of the purpose and significance of the study follows. The research questions, assumptions and limitations are then presented. The chapter concludes by providing definitions of the relevant terms used herein.

Background

In 2001, the *Elementary and Secondary Education Act* of 1965 was radically transformed through the passage of the *No Child Left Behind Act (NCLB)*, NCLB focused on improving student achievement in schools and included stringent accountability measures for non-performing schools and the required use of research-based teaching methods to improve all schools (Education, 2010). Although the law provided little guidance for implementing new strategies or procedures necessary for improving schools (Scott, Duffrin, Kelleher & Neuman-Sheldon, 2009), NCLB required states to establish academic standards and performance goals for schools to meet Adequate Yearly Progress (AYP). AYP lists are published annually, informing stakeholders of the achievement status of local schools (Ashby, 2009). AYP was a mechanism for examining students as a whole and across subgroups.

A school can fail to make AYP if a single subgroup of students does not meet the performance target in reading or mathematics or fails to make AYP for two or more consecutive years are identified as “in need of improvement” and are subject to a series

of sanctions that increase in number and severity the longer a school remains in improvement status. (Kim & Sunderman, 2005, p. 3)

Recently, the federal government established a program to grant waivers to states that meet certain criteria (Strauss, 2011), in order to avoid the requirement that 100 percent of students will demonstrate proficiency in reading, math, and science by 2014.

Although governmental supporters were hopeful that this law would effectively foster student progress toward the achievement of state standards, Sawhill (2006) described inherent flaws in the legislation. He identified three problems: (1) States were allowed to develop their own standards resulting in benchmarks for student achievement that vary widely across the country; (2) Many states set their benchmarks at a low level to make it easier for students to pass, thus making parents happy and (3) Little emphasis was placed upon measuring year-to-year improvements because of a preoccupation with levels of proficiency on an annual basis.

In addition to these identified challenges with NCLB, Tehrani (2007) noted that no incentives were offered for students performing on or above grade level. Moreover, federal mandates failed to reward schools for making progress toward learning targets – instead opting to punish them for falling short of reaching established levels of competency. Additionally, in situations where schools are not performing well, resources are often redirected toward busing students to another school rather than improving the school they attend (Tehrani, 2007). Consequently, schools have often been placed in impossible positions when faced with AYP requirements they could not meet and many have responded in ways that made matters worse (Harris, 2006).

As noted, a feature of NCLB is the requirement to disaggregate achievement data. This practice can reveal an achievement gap between and among student groups based on a variety of

factors such as gender, ethnicity, disability or socioeconomic status. This means that schools cannot hide behind high achievement levels that reflect an average of all students (Jenkins, 2009). This requirement has led to the discovery of wide disparities among student groups on a national level. Unfortunately, the differences seem most noticeably apparent for certain subgroups. Boyle, Georgiades, Racine and Mustard (2007) found a relationship between higher than average levels of achievement on tests for students coming from higher socioeconomic backgrounds. Conversely, in general, poor and minority students tend to fall behind their counterparts in standardized test performance. In response to this situation, Wise (2008) wrote, “For too many poor and minority students, rather than driving social equity, our education system exacerbates a preexisting divide” (p. 9).

However, despite these findings, there is a growing body of literature reporting situations in which schools are successful with students, regardless of their ethnic or economic backgrounds (Ashby, 2009; Lindahl, 2007; Reeves, 2003; Smith & Hoy, 2007). Questions persist as to why poor and minority students are successful in some schools and not in others.

School Factors and School Success

A number of school factors have long been associated with student achievement and linked to successful schools. DuFour and his colleagues (2004) list several factors common to high performing schools, regardless of grade configuration, geographical area and student ethnicity. Among these factors are: a collaborative culture where teachers feel empowered; an emphasis on results; a commitment to tackle problems together and a willingness to go the extra mile to support student achievement. Davenport and Anderson (2002) espoused the notion that no student “should be condemned to educational failure because of his or her family background, race or socioeconomic status” (p. 26). The authors described five characteristics of effective

schools: frequent student assessment to evaluate the program; a safe learning environment; strong instructional leadership by administrators; a clear instructional focus and high expectations for student achievement.

Craig, Butler, Cairo, Wood, Gilchrist, Holloway, Williams and Moats (2005) performed an analysis of studies to ascertain reasons for the success of some high performing high poverty schools. Criteria included significant levels of parental involvement, sustaining expectations of academic student and teacher success, an emphasis on effective teaching and a commitment to sustained effort. They state “high student achievement is not a state achieved but a process maintained” (Craig, Butler, et al., 2005, p. vii).

The seemingly trite statement that all students can learn at high levels should be the goal of every school, every educator, every parent and every student. Research on high-performing school districts suggests that the notion that all students can learn is more than mere rhetoric (Cawelti & Protheroe, 2001). Admittedly, there is no foolproof way to guarantee student success and a plethora of strategies are needed for any school to ensure that all students consistently achieve academically (Scott, Duffrin, et al., 2009). However, schools that achieve seem able to successfully implement research-based educational strategies. Among these are academic optimism and enabling structures. Additionally, research documents a significant relationship between these two constructs (Beard, Hoy, et al., 2010; McGuigan & Hoy, 2006).

Academic Optimism, Enabling Structures and School Success

Academic optimism is a construct comprised of interactions between efficacy, academic emphasis and trust (Beard, Hoy, & Hoy, 2010). The construct of academic optimism facilitates the development of a positive school environment. Moreover, this environment tends to foster teacher efficacy (Hoy, Tarter, & Hoy, 2006). Academic emphasis creates high expectations and

high standards for academic success (Goddard, Hoy, & Hoy, 2000). In schools with high academic optimism teachers, students and parents trust one another. Consequently, this builds cooperation among them (Hoy, Tarter, et al., 2006).

Academic optimism may hold promise for sustainable change because it can be learned (McGuigan & Hoy, 2006). Research points to academic optimism as an element having a significant, positive impact on student achievement, regardless of the type of background a student might have (Hoy, Tarter, et al., 2006; McGuigan & Hoy, 2006).

Hoy (2006) introduced readers to the construct of academic optimism. The first study on this topic was conducted by Hoy, Tarter, and Hoy (2006). The authors defined academic optimism as the collective confidence that the faculty can make a difference, high academic standards can be reached and students can learn. Academic optimism seems to be a fluid construct that can be applied to a wide variety of settings. Both individual teacher academic optimism (Beard, Hoy, et al., 2010; Fahy, Wu & Hoy, 2010; Hoy, Hoy, & Kurtz, 2007; Mascal, Leithwood, Straus, & Sacks, 2008) and school level academic optimism studies can be found in the literature (Bevel 2010; Hoy, Tarter, et al., 2006; McGuigan & Hoy, 2006; Smith, 2009; Smith & Hoy, 2007). Moreover, academic optimism has been applied to issues of distributed leadership (Mascal, Leithwood, et al., 2008) as well as to relationships with school community stakeholders (Kirby, 2010; Kirby & DiPaola, 2009). Each of these studies found a connection between academic optimism and academic achievement.

A trend in the literature indicates that academic optimism can be generated by procedures designed and implemented to support teacher success. These procedures, called enabling structures, are defined as the policies that allow teachers to do their jobs better (McGuigan & Hoy, 2006). Enabling structures have been linked to student achievement in a number of studies

(Sinden, Hoy, & Sweetland, 2004; Sweetland, 2001; Sweetland & Hoy, 2000). Sinden, Hoy and Sweetland (2004) list a number of characteristics of enabling structures that teachers view as positive and supportive, such as promoting collaboration, valuing individual teacher differences, actively encouraging problem solving and viewing problems as opportunities. It is important for administrators to understand that an effective organizational structure can have a positive impact on student achievement (Rhoads, 2009). Enabling structures allow for effective, cooperative work to occur while teachers and administrators retain their unique responsibilities (Sweetland, 2001). These constructs – enabling structures and academic optimism – have consistently demonstrated a strong connection to high student achievement.

This study sought to examine the relationship between these constructs. Two studies provide a foundation for this research (Beard, Hoy, et al., 2010; McGuigan & Hoy, 2006), but one investigation established connections between enabling structures, academic optimism and student achievement (McGuigan & Hoy, 2006). The first study, penned by McGuigan and Hoy in 2006, focused on the potential connection between enabling structures, exemplified by principal leadership, and academic optimism. McGuigan and Hoy found a significant association between academic optimism, measured at the school level, and academic achievement – even controlling for socioeconomic status. Additionally, their results indicated that school processes or enabling structures fostered academic optimism. The latter research design, developed by Beard, Hoy and Hoy (2010), also demonstrated a connection between enabling structures and academic optimism; student achievement was not a focus of the study because of the emphasis on perceptions of individual teachers.

Purpose of the Study

The current culture of accountability and intense school scrutiny demands that schools consistently close achievement gaps and demonstrate success. In such a culture, it is especially desirable to explicitly quantify the reasons for a school's success, especially if schools are able to reverse a sustained, pervasive trend of failure or surmount factors that typically impede academic achievement, such as socioeconomic status. Researchers have established a significant relationship between academic optimism, enabling structures and student achievement in elementary school settings (McGuigan & Hoy, 2006). The primary purpose of this study was to examine relationships between enabling structures, academic optimism and student achievement and to determine if academic optimism serves as a mediator. A secondary purpose was to discover teacher perceptions of the relationship of their success to enabling structures and academic optimism.

Significance of the Study

This study serves as the first inquiry to investigate the mediating relationship between academic optimism, enabling structures and student achievement. Moreover, this study is the first investigation to use multiple measures, both norm-referenced tests (NRT) and criterion-referenced tests (CRT) to represent student achievement. In addition, except for three studies, Bevel (2010), Smith and Hoy (2007), and McGuigan and Hoy (2006), which were conducted in the southern United States, most studies were conducted in one Midwestern state (Beard, Hoy, et al., 2010; Fahy, Wu, et al., 2010; Hoy, Hoy, et al., 2004; Hoy, Tarter, et al., 2006; McGuigan & Hoy, 2006). This study had a focus similar to McGuigan's 2006 work, except for a difference in the sample. In the McGuigan study, most schools were located in urban areas. Bevel's (2010)

inquiry excluded rural schools, focusing on suburban and urban populations in four school districts. This study included all elementary schools in urban, rural, and suburban settings.

Moreover, analysis methods in this inquiry differ from those used in other studies. McGuigan & Hoy (2006); Beard, Hoy & Hoy (2010) and Bevel (2010) all utilized multiple regression and factor analysis as their principal tools. The researcher incorporated Baron and Kenny's (1986) notion of mediator variables; Kensler, Caskie, Barber and White (2009) also found this method of analysis to be effective. Academic optimism is theorized to serve as a mediator variable; this analysis was used to determine whether this construct effectively reconciles the relationship between enabling structures and student achievement.

This approach adds a unique perspective to the body of literature on academic optimism and enabling structures. If the findings reveal that academic optimism serves as a mediator between enabling structures and student achievement, this inquiry would serve as the first to affirm the mediation relationship. Further study using mediation would be in order, perhaps in other areas of the country, with larger populations and in other school settings such as middle and high schools.

This inquiry will become one of approximately fifteen studies on the construct of academic optimism, and only the second study relating student achievement, academic optimism and enabling structures. Should results found here mirror those of other studies and indicate a connection to student achievement, educators would be wise to consider component parts of enabling structures (collective efficacy, faculty trust and academic emphasis) in the operation of their schools. After analyzing schools for varying levels of these components, educators could then modify school improvement plans to incorporate strategies for increasing associated levels of components found to be absent or inadequate.

Statement of the Research Questions

This study identified academic optimism as a potential intermediary between enabling structures, an independent variable, and student achievement, the dependent variable, as seen in Figure 1, resulting in the development of the following four research questions.

1. To what extent are enabling structures related to student achievement, controlling for socioeconomic status?
2. To what extent is academic optimism related to student achievement, controlling for socioeconomic status?
3. Does academic optimism mediate the relationship between enabling school structures and student achievement, controlling for socioeconomic status?
4. To what extent do teachers view policies and procedures related to enabling structures and academic optimism as facilitators of their success?

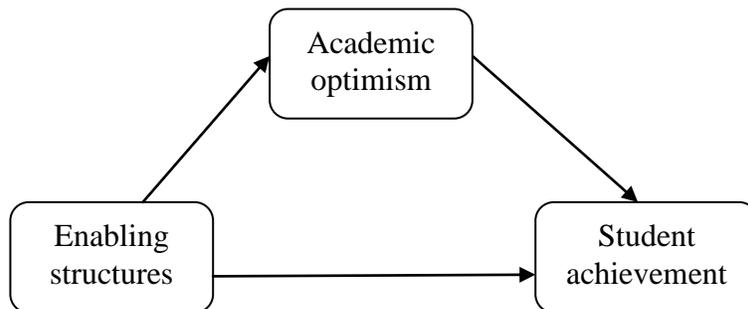


Figure 1. Academic Optimism as a Mediator Variable

Methodology

The population for this study was the set of all 1093 elementary schools in the state of Alabama. It was not feasible to survey teachers from each elementary school. Consequently, a

random group of 489 schools was selected to survey. These schools were selected based on the researcher's ability to secure permission to administer the instrument, based on either association with an administrator in the district or interest in the study.

After receiving approval from the University Institutional Board, the researcher collected data using Qualtrics, an online data collection tool. Survey questions were entered into the online program. Upon receiving permission from the superintendent, his/her designee or the school principal, a unique link was created for each school and emailed to principals, who then forwarded the information to individual teachers. Data were collected, downloaded into a Microsoft Excel electronic database and transferred into SPSS for analysis. Additional details about the data collection and analysis process can be found in Chapter Three of this inquiry.

Survey instruments used for this quantitative study in the areas of enabling structures and academic optimism were developed in 2003 and 2005 respectively by Dr. Hoy. All surveys were tested and found to be reliable. Enabling structures were measured through the *Enabling School Structures* (ESS) form (McGuigan & Hoy, 2006). This instrument assesses enabling bureaucracy via a twelve question survey with a five-item Likert scale. Available responses are "always", "fairly often", "sometimes", "once in a while" or "never".

Academic optimism, which includes the components of collective efficacy, trust, and academic emphasis, were measured using the *School Academic Optimism Scale* (SAOS) instrument (Hoy, Tarter & Hoy, 2006). SAOS has thirty questions. The first twelve questions cover collective efficacy. Questions 13–22 address faculty trust and the final eight questions concentrate on academic emphasis. All of the academic emphasis questions are worded in a positive manner, while the remainder of the questions on the academic optimism tool has a mix of both positive and negative wording. Likert-type scales are used for SAOS as well, with either

six items (collective efficacy and trust: “strongly agree”, “agree”, “somewhat agree”, “somewhat disagree”, “disagree” or “strongly disagree”) or four items (academic emphasis: “very often”, “often”, “sometimes”, “rarely”). An additional question was added to the questionnaire in order to gather qualitative data to enhance understanding of the findings. The question asked, “What policies or procedures have been implemented by your school administrator that help you do your job better?”

A variety of analysis procedures addressed the research questions for this mixed methods study. Descriptive statistics and correlations answered the first two research questions, while hierarchical regression was utilized in order to respond to the third question. Baron and Kenny (1986) listed four required steps for mediation; each of those steps was closely followed in order to confirm or reject the existence of academic optimism as a mediator variable between enabling structures and student achievement. Both CRT and NRT were utilized as measures of student achievement, and mediation with academic optimism and enabling structures was ascertained with each dependent variable.

Content analysis was used to answer the qualitative research question. Responses to an open-ended question provided the data which, when analyzed for themes and trends, supplied a list of specific procedures teachers attributed to successful instruction. These qualitative and quantitative procedures are described in more detail in Chapter Three of this study.

Assumptions

The following assumptions were made about the study:

- Superintendents and principals who gave permission for their teachers to participate did not coerce or in any way exert pressure on their teachers to respond.

- Individuals taking the survey did so honestly with regard to their individual school setting.
- Individuals completed the forms without outside pressures from anyone in the school or school system.
- Criterion-referenced and norm-referenced standardized tests in reading and mathematics are both acceptable measures of student achievement.

Limitations

The Alabama State Department of Education database was consulted to develop the school list. School superintendents and principals were contacted by email and/or phone to ascertain their desire to allow their teachers to participate in this study. Those who were unfamiliar with the researcher, were too busy or were wary of educational research self-selected themselves out of participation.

Electronic distribution was chosen as the method of survey delivery; surveys were completed in the spring of one school year and the fall of the following school year. Although the instruments are short, the researcher was aware that the pressures and distractions of standardized testing and teacher responsibilities at the end and at the beginning of the school year could prevent teachers from responding. Email reminders were sent at timely intervals to address this limitation. Out of respect for the daily demands of teachers and administrators, administrators were not reminded more than once in most cases. Moreover, the study occurred in Alabama and thus it is possible the findings will not easily generalize to other populations.

Previous studies utilized a single measure for student achievement. In the spring of 2011, Alabama measured student achievement with both CRT and NRT reading and math. This study used all four measures for student achievement (criterion-referenced tests in reading and math;

norm-referenced tests in reading and math), which may have unnecessarily complicated the findings.

Definition of Terms

This section contains definitions of terms relevant to the study.

Academic emphasis is described as pressure toward a common purpose from which school stakeholders are not expected to deviate; an overall goal of conformity (Lee & Smith, 1999).

Academic optimism is defined as the confidence among all school stakeholders that students will achieve academic success (McGuigan & Hoy 2006). Academic optimism is comprised of three components: collective efficacy, faculty trust and academic emphasis.

Collective efficacy is characterized by the perceptions of teachers in a school that the faculty, as a whole, can execute necessary actions that will have positive effects on students (Goddard, 2001).

Enabling structure is a construct that facilitates teacher work through policies and procedures set forth in a school (McGuigan & Hoy 2006).

A *mediator variable*, as mentioned above, is an independent variable that is inserted to ascertain the relationship between another independent and a dependent variable (Baron & Kenny 1986; Kensler, Caskie et al., 2009); analysis reveals whether this term has an effect on that relationship.

Student achievement, for the purposes of this study, is defined as a passing score on the reading or mathematics subtest of the Alabama Reading and Math Test (CRT), a criterion-referenced test designed to meet the accountability requirements of the ESEA. Additionally, Total Reading and Total Math scores above 50% on the Stanford Achievement Test, 10th

Edition, a norm-referenced test (NRT), are considered to be passing. The SAT-10 was administered for the last time in the spring of 2011 in Alabama.

Trust is described as a group's willingness to be vulnerable to another party based on the confidence that benevolence, openness, honesty, reliability and competence exist (Adams, 2008; Bryk & Schneider, 2003; Goddard, Salloum, & Berebitsky, 2009; Goddard, Tschannen-Moran, & Hoy, 2001; Hoy, 2002; Hoy, Smith & Sweetland, 2003; Hoy & Tschannen-Moran, 1999).

Conclusions and Organization of the Study

This chapter presented background information and an overview of the study. Chapter Two provides a review of the literature on factors that facilitate student success in schools, academic optimism and enabling structures and the three components of academic optimism: trust, collective efficacy and academic press. Research instruments, methods and procedures used to gather and analyze data are detailed in Chapter Three. Chapter Four presents the findings of the overall study. Chapter Five contains a manuscript addressing the first three research questions, and Chapter Six includes a manuscript that answers the fourth research question. Chapters Five and Six offer implications for practice and recommendations for future research.

CHAPTER 2: REVIEW OF LITERATURE

This chapter reviews the literature pertinent to enabling structures and academic optimism. It begins with an introduction, which connects student achievement and school climate to these constructs. This is followed by a review of the literature on enabling structures. Research on academic optimism is then presented, including its component parts: academic emphasis, collective efficacy and faculty trust. The chapter concludes with a summary.

Student Achievement and School Climate

Schools are under intense pressure to demonstrate consistent academic student progress (Ashby, 2009; Craig, et al., 2005; Harris, 2006; Linn, 2003; Rutter & Maughan, 2002; Scott, Duffrin, et al., 2009; Stuit, 2010; Tehrani, 2007). Implementation of a federal mandate, the Elementary Secondary Education Act (ESEA), commonly referred to as No Child Left Behind, has produced increased demands on schools to achieve. This legislation was designed to address several goals, including stringent accountability measures for non-performing schools and the exclusive use of research-based teaching methods (Education, 2010), but offered little direction in developing or employing those methods (Center on Educational Policy, 2009). Unfortunately, the ESEA has had limited success in terms of improving academic achievement (Rouse & Barrow, 2006). As partners in the educational process, researchers are searching for solutions by studying and conveying the characteristics of successful schools.

A number of structures have long been associated with student achievement and linked to successful schools, such as strong instructional leadership by administrators, a clear instructional

focus and high expectations for student achievement (Davenport & Anderson, 2002). Several school characteristics which appeared to facilitate student success were discussed in a treatise by Rutter and Maughan (2002), such as school management, climate (described in the study as “ethos”), effective monitoring and group management (including lesson design and classroom management). DuFour and his colleagues (2004) noted the importance of high levels of efficacy, resulting from effective professional learning communities. Additional features seemed to manifest themselves through efficacious behavior, such as a collaborative culture, an emphasis on results and a commitment to tackle problems together. Brown, Benkovitz, Muttillio and Urban’s (2011) investigation revealed school characteristics that resulted in a low achievement gap between students of higher and lower socioeconomic groups, such as a strong, collective sense of purpose, high expectation for students and a teamwork approach to problem solving.

Each school has a distinct personality (Hoy, 2012); perhaps it is an interest in ascertaining the potential positive contribution of climate on an organization that led researchers to document the relationship of climate on schools. Schneider (1980) posited that a focus on the development of relationships would bolster the long-term viability of a service-oriented organization. Others have examined the significant impact that school climate can have upon student achievement (Anderson, 1982; Anderson, Hamilton, & Hattie, 2004; Hoy, Hannum, & Tschannen-Moran, 1998; Lindahl, 2006). Hoy’s (1997) research concluded that the climate of a school was easier to change than intrinsic factors, such as the socioeconomic rank of the surrounding community. Additionally, Hoy and colleagues (1998) argued that climate was a concrete, less subjective lens through which schools could be studied, and confirmed a positive relationship between climate and school effectiveness. Therefore, facilitating the development of high student achievement and high achieving schools can be done by reforming the environment

so as to improve both the climate and performance (Hoy & Tarter, 1997b). Two important elements seem to embody the existence of effective, positive school climates: academic optimism and enabling structures.

Enabling Structures

Enabling structure is a construct that facilitates teacher work through policies and procedures set forth in a school (McGuigan & Hoy, 2006). This concept was based on studies on organizations, and that literature is summarized here. Next, an overview of the research on enabling structures was presented.

Schools as Bureaucratic Organizations

Schools were deemed complex bureaucracies. The term ‘bureaucracy’ can be traced back to the eighteenth century, according to Theuvsen (2004), when monarchies described their central administrations. Vincent de Gournay was said to have coined the use of the term when he referred to unproductive civil servants as bureaucrats (Theuvsen, 2004).

Senge and colleagues (2000) posited that our current view of schools as bureaucratic organizations hearkened back to the industrial age when the world was understood as being comprised of discrete components, much like a machine. As these organizations focused on producing high-quality products, educators of the time developed a factory line mentality focused on education as a commodity. Schools were organized into grades and students were expected to move together from one grade to the next, just like products that were built piece by piece on the assembly line. These schools included their rules and regulations, hierarchical organization of authority, objective standards and a division of labor (Hoy, 2003). Local supervisors, namely teachers, maintained order in the classroom knowing that they were

expected to produce a certain amount of learning in each child and managers, like administrators, kept things running smoothly.

Consequently, schools developed bureaucratic structures, much like businesses, to organize themselves and execute the function of learning. These structures have had negative connotations (Adler & Borys, 1996; Bolman & Deal, 2008; Hoy & Sweetland, 2001; Senge, Cambron-McCabe, et al., 2000; Sweetland, 2001). Others have interpreted these negative connotations as being exclusive to public schools, touting private schools as being favorable. Chubb and Moe (1988) preferred the structures inherent to private schools, stating that those structures promoted school effectiveness. Bohte (2001) advocated for school choice, believing that competition could compel public schools to overcome their bureaucratic tendencies. Smith and Larimer (2004) found mixed results, stating that the effect of bureaucracy on school performance was neither completely positive nor negative. Conversely, Smith and Meier (1994) posited that bureaucracy developed out of necessity, and that positive results could ensue.

Therefore, research has indicated that bureaucracies can have positive consequences. Sweetland (2001) noted that employee satisfaction can increase in a bureaucracy. Other positive features include decreased feelings of alienation, increased innovation and clear role definition (Sweetland, 2001). Thus it is not the fact that an organization has a bureaucratic structure that is the difficulty. Rather it is the manner in which these structures are organized and the way in which people within them relate to one another that determine whether the environment is positive or negative.

Different types of structures or bureaucracies exist along a spectrum, with positive or enabling on one end and negative or coercive on the other end. Positive or enabling structures

seemed to enhance the educational environment while coercive structures appeared to hinder the educational process (Adler & Borys, 1996; Bolman & Deal, 2008).

Adler and Borys (1996) state that coercive bureaucracies are punishment-centered and stifle creativity, demotivate staff members and foster dissatisfaction among the employee ranks. Individual autonomy is reduced, compliance is forced and rules legitimize one party's right to discipline another in times of conflict. Unlike this coercive approach, enabling processes focus on technical efficiency and facilitate transparency. Key components of processes that govern staff members are clearly explained to them and best practices are publicized. Feedback on employee performance is regularly offered, as measured by those best practices. Rules and regulations are likely to facilitate organizational functioning only when the requirements of a task are understood well enough to be clearly and concisely communicated (Tschannen-Moran, 2000). In other words, enabling bureaucracy facilitates innovation.

Types and Effects of Bureaucracies in Schools

Hoy and Sweetland (2001) describe two kinds of bureaucracy: formalization and centralization. Formalization is defined as the extent of written rules, instructions and procedures and can be divided into two types according to Adler and Borys (1996), namely enabling and coercive. Enabling formalization represented flexible guidelines that support problem solving, while coercive formalization is based on punishment, essentially forcing compliance with established rules. Centralization captures the degree to which staff members participate in the decision-making process. This type of bureaucracy has two categories: low centralization, where shared decision-making occurs and high centralization, where the power to make decisions remains in the hands of only a few individuals. Figure 2 depicts a pictorial representation of these bureaucratic types.

		Formalization	
		Enabling	Coercive
Centralization	Enabling	Enabling Bureaucracy	Rule-bound Bureaucracy
	Hindering	Hierarchical Bureaucracy	Hindering Bureaucracy

Figure 2. A Typology of School Bureaucracy (Hoy & Sweetland, 2001).

Coercive procedures impedes school progress, such as rule-bound bureaucracy, hierarchical bureaucracy and hindering bureaucracy; such structures violate the trust that may have been established between teachers, as well as between teachers and their administrators. Coercive procedures are top-down, unilateral, and unyielding. They were designed to monitor and control teachers. Adverse consequences are not necessarily inherent in the rules themselves, but rather are due to the decisions that administrators make in establishing rules and procedures (Sweetland, 2001, p. 298), which are not effective in regulating the complex realm of teaching and learning (Goddard, Salloum & Berebitsky, 2009). Coercive procedures frustrate two-way communication, are autocratic, include viewing problems as obstacles, foster mistrust, demand consensus, suspect differences, punish mistakes, and fear the unexpected. Their central feature is blind obedience to the rules. Enabling strategies required participation and collaboration.

In contrast, enabling procedures are designed to engage people in interactions. In these environments, people are invited to participate in interactive dialogue. Problems are viewed as opportunities, differences are valued. Individuals in such bureaucracies are encouraged to view

problems as opportunities, value differences, capitalize on and learn from mistakes and delight in the unexpected. Differences are valued in these schools, thus, enabling structures facilitate collaborative problem solving.

Research on Enabling Structures

In the past decade, a number of researchers have attempted to examine and codify structures within enabling school bureaucracies in order to determine their effectiveness in improving schools. Several dissertations and studies offer detailed treatises of this research construct, most of which include the work of Drs. Wayne Hoy and Scott Sweetland.

A preliminary study was done by Hoy and Sweetland (2001) with 61 teachers who were graduate students in educational administration courses at The Ohio State University, representing urban, rural and suburban schools. In this sample of schools, when the hierarchy was enabling, so were rules and vice versa. The four types of bureaucracy under review in this study can be found in Figure 2.

Although other studies identified the same four types of bureaucracy (enabling, rule-bound, hierarchical and hindering), none of these were found in the Hoy and Sweetland inquiry. Instead, school bureaucracy varied along a continuum with enabling bureaucracy at one extreme and hindering bureaucracy at the other. The study concluded that both hierarchy and rules served as vehicles for supporting teachers rather than a means of increasing the power and authority of the principal. Trust increased, according to the findings, as enabling bureaucracy increased; this relationship proved to be a significant one. Moreover, teacher trust of colleagues appeared to have promoted a climate in which enabling bureaucracy could function effectively (Hoy & Sweetland, 2001).

Hoy and Sweetland (2001) introduced the construct of enabling structures, and Sweetland's (2001) study researched the connection between that construct and two additional variables, professional authenticity and teacher sense of power. One hundred sixteen teachers, each from a different school (educational administration professors collected data from teachers who were graduate students at major universities in Michigan, New Jersey, New York, Ohio, and Virginia) were represented in the sample. A correlational analysis was performed which supported all three hypotheses – r values averaged 0.74. The regression analysis indicated that each of the predictor variables made an independent, significant contribution to the variance. Sweetland (2001) concluded that the strong correlations observed between enabling structure and authenticity and teacher sense of power seemed to facilitate authentic relationships between teachers. Furthermore, according to Sweetland, the behavior of the principal, as well as established rules could have had an effect on teacher empowerment. Additionally, Sweetland suggested that enabling bureaucratic structure warranted further study.

Chronologically, Hoy presented the next study on enabling structures in 2002 by developing an investigation which extended previous work (Hoy & Sweetland 2001; Sweetland 2001). The concepts of enabling structures and mindfulness organizations were presented, discussed and synthesized in order to suggest useful applications for practice. Mindfulness, whether applied to individuals in a school or to the entire organization, was described as a state of reflective practice rather than a robotic, reactive method of responding to routine situations – or “premature cognitive commitment” (p. 94). Conversely, mindlessness developed through repetitive practices of doing things the same way without any consideration of the circumstances. Several hypotheses were presented and, although studies were cited to explain each statement, no research was conducted to affirm or disprove them. However, results suggested that mindfulness

was facilitated by enabling structures, but the presence of enabling structures did not guarantee that mindfulness existed. Practical suggestions included a recommendation to reduce the overall number of rules in an organization in order to remove barriers to effectiveness. “Enabling administrators likely subscribe to the mindful edict: there are no absolute rules” (p. 105).

Sinden joined Hoy and Sweetland (2004) to perform an analysis of enabling structures. Their theoretical framework was designed to describe formalization and centralization as components of enabling structures, to discuss the positive and negative connotations of a bureaucratic structure and to identify those features that encapsulated positive outcomes of school structure while eschewing negative ones. This study was unique, in that it was a qualitative work. Participation in this study depended on high scores obtained on an enabling bureaucracy scale. Researchers invited six schools to participate, and 27 teachers took part in interviews that spanned a four month time period. Several themes emerged from the interviews:

- Rules and procedures were flexible, representative, and informal;
- Structures were smaller, authorities were accessible and decision-making was shared;
- Principal behaviors were open, professional, and supportive;
- Teacher behaviors were informal, supportive, and trusting.

While there was some variation in responses, especially as to whether behaviors were enabling or hindering, there was more agreement that some behaviors were positive and others negative.

More recently, dissertations have tackled enabling structures from different perspectives. Another study established a connection between mindfulness and enabling structures, similar to Hoy’s (2002) investigation. Watts’ (2009) research took a different viewpoint, developing a relationship between enabling structures, mindfulness and teacher empowerment. Teacher empowerment was described as the development of the ability of teachers to manage their own

professional growth and solve problems effectively. Approximately 1100 teachers from 23 schools responded to a survey measuring teacher empowerment, mindfulness and enabling structures. While enabling structures and mindfulness were related, no significant relationship was documented between those two measures and teacher empowerment. The author surmised that a larger sample of schools might confirm the presented hypothesis.

Another dissertation presented by Tylus (2010) investigated the potential relationship between teacher empowerment, as manifested through professional learning communities (PLC), and enabling structures. First of all, teacher perceptions were recorded regarding the type of bureaucracy present in their school, ranging on a continuum from enabling to hindering. Next, responses were recorded to a questionnaire about teacher participation in a PLC and any subsequent influence on their instructional practices. Tylus found a significant relationship between enabling structures and teacher perceptions about changes in their instructional practices as a result of their participation in a PLC.

Rhoads (2009) studied the interaction of enabling structures and collective efficacy, an element which will be described in detail later in this chapter, in American schools located in Mexico. Two hundred sixty teachers from 15 schools responded to a survey composed of questions from Hoy and Sweetland's (2000) Enabling School Structure (ESS) survey instrument and Goddard, Hoy, and Hoy's (2000) Collective Efficacy (CE) instrument. Findings indicated that the degree of perceived collective efficacy increased as the levels of enabling structures increased in the school. Consequently, Rhoads recommended that administrators should make establishing and maintaining a supportive school environment a top priority.

Although relatively few studies exist regarding the relationship between enabling structures and student achievement, the work is noteworthy. An analysis of the structures that

set the stage for academic achievement yields valuable information for administrators and school stakeholders, especially in the current climate of school accountability. A connection between enabling structures and another construct, academic optimism, is examined in this study, and research regarding that construct follows.

Academic Optimism

A recent contribution to the literature from Hoy (2012) delineates specific school characteristics which appear to promote academic achievement. The author traces a 40 year career in research to the present, based on an interest in the climate and structures that are found in schools. Findings supported the development of a construct based on the interplay between academic emphasis, collective efficacy and faculty trust, dubbed academic optimism. The next section of this chapter is devoted to research of this construct and its component parts as they relate to academic achievement.

Like enabling structures, academic optimism has been found to be significantly related to school and student success. Academic optimism is comprised of academic emphasis, collective efficacy and faculty trust. As researchers developed this construct, they conjectured that trust and efficacy seem to be optimistic in nature, and that academic emphasis provided an academic focus to that optimism (Hoy, 2012). Consequently, background in the creation of this construct harkens to research on positive psychology, hope and optimism.

Positive Psychology and Optimism

Inherent in the term academic optimism, grounded in the positive psychology movement, is a positive perspective – perhaps a school achieving at high levels radiates positivity. The very nature of positive psychology is to focus on strength and resilience, and to be concerned with enhancing and developing wellness, prosperity and the good life (Luthans, 2002).

In existence for over a century (Taylor, cited in Mruk, 2008), the field of positive psychology is about valued subjective experiences in the past (contentment), present (happiness) and future (hope and optimism) (Seligman & Csikszentmihalyi, 2000). The authors purported that positive psychology is characterized by several traits with regard to a group setting, including responsibility, altruism, tolerance and work ethic, all of which might be properties of a strong, resilient school. All too often, the field of psychology operates in a deficit model instead of choosing to study more positive characteristics, such as strength and virtue. Continued research in the field of positive psychology could result in developing strength and productivity in normal, healthy people and facilitating actualized human potential (Seligman & Csikszentmihalyi, 2000).

A positive attribute, optimism, has been defined as an attitude associated with an expectation about a desirable future according to Peterson (2000). Peterson went further, connecting optimism to a number of characteristics, such as a positive morale, perseverance, effective problem solving and to academic, athletic, occupational and political success. Conversely, the opposite of optimism – pessimism – indicated depression, social estrangement, passivity and failure.

Peterson (2000), in his quest to discover ways to cultivate optimism, advocated for modeling. Examples come from many avenues, but attention must be paid to the messages conveyed to others, especially those sent to children. Even the media support or hinders this effort as both chronicles with fairy-tale endings and violent, pessimistic tales are shown, suggesting that anything is possible that dangers lurk around every corner.

The Development of Academic Optimism as a Construct

In Hoy's (2012) description of the development of academic optimism, he related the high levels of correlation between academic emphasis, collective efficacy and faculty trust; this correlation was so high that multicollinearity issues arose. This led Hoy and his colleagues (2006, 2012) to uncover and define the underlying property connecting these components. Academic optimism is a characteristic of a school that is academically successful (McGuigan & Hoy, 2006). This construct is defined as the confidence among all school stakeholders that students will achieve academic success (McGuigan & Hoy, 2006). Hoy and colleagues (2007) further described academically optimistic teachers as those who are committed, resilient, engaged, energetic and conscientious in the pursuit of academic achievement. Inherent in this term is a positive connection between optimism and hope; individuals with high levels of hope achieve, whether they are children or college students. Research also supports the notion that hope relates positively to problem solving (Snyder, Simpson, Michael, & Cheavens, 2001).

Initially, academic optimism was measured at the school level (Hoy et al., 2006) and subsequent studies, including this inquiry, aggregated data to the school level in order to quantify relative levels of academic optimism in the organization (McGuigan & Hoy, 2006; Smith, 2009; Smith & Hoy, 2007). There has been a recent shift from collective academic optimism to individual academic optimism, in hopes of ascertaining the predictive power of the construct in teachers. Researchers interested in the proliferation of this type of academic optimism developed inquiries based on that premise (Fahy, Wu, & Hoy, 2010; Hoy, et al., 2007), and a recent study presented findings of individual student academic optimism (Adams & Forsyth, 2011).

Academic optimism has been investigated in a variety of settings. The bulk of the research done on academic optimism focused on elementary schools (Adams & Forsyth, 2011; Beard, 2008; Beard, Hoy, & Hoy, 2009; Bevel, 2010; Brown, et al., 2011; Hoy, et al., 2007;

Kirby, 2010; McGuigan & Hoy, 2006; Smith & Hoy, 2007), although research was conducted in high school settings as well (Duffy-Friedman, 2008; Fahy et al., 2010; Hoy, Tarter, & Hoy, 2006; Kirby & DiPaola, 2009). Other investigations examined the effects of academic optimism on parent involvement (Kirby, 2010), discipline (MacPherson & Carter, 2009) and on distributed leadership in schools (Mascall, Leithwood, Straus, & Sacks, 2008).

Much of Hoy's previous research in the areas of trust and efficacy set the stage for academic optimism, and the first journal article published with that term came in 2006. An initial goal for the authors was to look beyond socioeconomic status to find factors that would impact student achievement. It seemed logical that research would have supported a relationship between administrative influences and student achievement, but such empirical data was difficult to obtain (Hoy, Tarter, & Hoy, 2006). Consequently, Hoy and associates explored the connection between academic emphasis, collective efficacy and faculty trust, attempting to demonstrate that these components could form a general latent construct related to student achievement.

Their research indicates that three elements comprise the academic optimism construct. These elements are: academic emphasis, collective efficacy and faculty trust in students and parents. The cognitive component, collective efficacy, is a group thought process. Academic emphasis is an expectation of particular behaviors in the school, and faculty trust in parents and students is an affective characteristic (Hoy, et al., 2006).

The literature reveals substantial evidence supporting the construct of academic optimism. Initially, before assuming in-depth research about this topic the logical progression was unclear as to the reason for Hoy and associates to have selected choose academic emphasis, faculty trust and collective efficacy to comprise academic optimism. The answer becomes

obvious from the research; studies describe striking similarities between the three individual components – suggesting that complex relationships exist between these entities.

- “When schools are characterized by high levels of *trust*, teachers tend to feel greater responsibility and are more likely to invest themselves in the operations of the school” (Goddard et al., 2009, p. 298). In schools where *trust* was improving, teachers described their peers as committed, loyal to the school and more willing to engage in practices that would help students learn better (Bryk & Schneider, 2003).
- Teachers who work in a school with high *academic press* are more likely to use a variety of instructional strategies, plan diverse lessons to attend to different learning styles, monitor and provide feedback on student progress more frequently, collaborate with colleagues, demonstrate collegial behaviors, and attend to their own professional learning (Goddard, Sweetland, & Hoy, 2000).
- *Collective teacher efficacy* influences student achievement because greater efficacy leads to greater effort and persistence, which results in better performance (Tschannen-Moran & Barr, 2004).

These attributes were selected because of the significant role each plays in shaping school norms and behavioral expectations. Group norms gave members of an organization a measure of control over the actions of others, because the actions of individuals had group consequences and social sanctions were proportionate to the importance of the norms (Hoy, Tarter, & Hoy, 2006).

Each component demonstrated a connection to academic achievement, thus strengthening the construct of academic optimism. Bower and Powers (2010) posited that student success results from a communication of academic press to all stakeholders – thus supporting the relationship between academic emphasis and faculty trust. As all stakeholders agree on high

academic expectations, all parties support each other and trust that each will do his or her part to facilitate student success. Academic learning is the shared responsibility of teachers, students and parents (Shouse, 1999). When teachers trust parents, faculty members can insist on higher academic standards with the confidence that their efforts will not be undermined by parents which, in turn, reinforces faculty trust (Hoy, Tarter, & Hoy, 2006).

Similarly, the other two components of academic optimism are functionally dependent on each other. Collective efficacy enhances trust, and trust in parents and students encourages collective efficacy in the school faculty. In addition, when the faculty believes it has the ability to organize and execute actions that will effect student achievement the level of rigor in the school increases; in turn, high levels of academic achievement fosters a strong sense of collective efficacy. Figure 3 (Hoy, Tarter, & Hoy, 2006), developed by Hoy and associates, illustrates the causal relationship that exists between the three components of academic optimism.

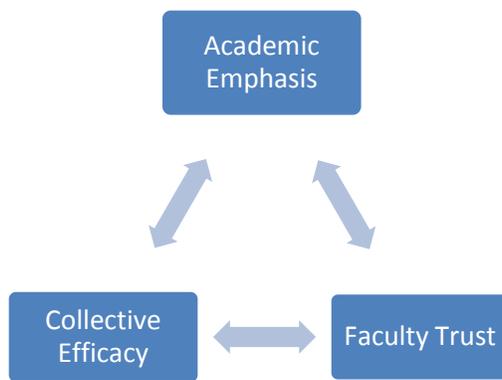


Figure 3. Reciprocal Relationships among the Three Components of Academic Optimism (Hoy, Tarter, Hoy 2006).

Results from Hoy's 2006 work with his associates came from surveys administered to faculty members in 96 high schools located in a Midwestern state who volunteered to participate. Structural equation modeling allowed both factor analysis and hypothesis testing to be

conducted, after controlling for the demographic variables (socioeconomic status, population density and previous achievement, operationalized through ninth-grade assessment scores).

Their findings supported their theory that academic optimism was a latent construct comprised of collective efficacy, faculty trust and academic emphasis.

In 2007, two studies with different perspectives on academic optimism in elementary schools were published. The first study concentrated on optimism in an urban elementary school setting in Texas; this was the first piece that attempted to apply academic optimism to a school whose students were primarily poor. Goals for the researchers, Smith and Hoy (2007), included demonstrating the viability of academic optimism in a metropolitan area and showing a relationship between academic optimism and student achievement. The second study moved away from measuring academic optimism as a school-wide characteristic to address the construct from the viewpoint of individual elementary school teachers in Ohio. Hoy, Hoy and Kurz (2007) set out to identify teacher practices and beliefs that seemed to predict academic optimism.

The sample in Hoy, Hoy and Kurz's (2007) study included elementary schools teachers who completed questionnaires on academic optimism, beliefs about instruction and management, individual citizenship and other demographic questions. Hoy and his associates developed seven hypotheses which were summarized as whether "teachers who believe in the potential of all students, make management and instructional decisions aligned with these expectations, and are committed to the success of their students will be more academically optimistic" (Hoy et al., 2007, p. 826). Using both zero-order correlations and multiple regressions, the authors' hypotheses were all confirmed.

Ninety-nine urban elementary schools comprised the population of Smith and Hoy's (2007) study. Aside from the query about the validity of academic optimism for this group (is

academic optimism a construct composed of academic emphasis, collective efficacy and faculty trust in parents and students?), Smith and Hoy studied the potential predictive power of academic optimism with respect to student achievement when controlling for school size and socioeconomic status. Their factor analysis demonstrated the validity of academic optimism as comprised of the three aforementioned components, and their multiple regression analysis revealed that academic optimism predicted student achievement (the beta weights for academic optimism and socioeconomic status were identical).

Yet another variation of the academic optimism theme was found in MacPherson and Carter's work (2009) – namely an application of the framework provided by academic optimism to disciplinary policies. Classroom management issues consistently plague our schools, while administrators and teachers become less tolerant of students who seem unresponsive to traditional disciplinary practices. Consequently, the whole class suffers as the teacher constantly redirects the wayward student while the remainder of the children receives less instruction. Viewed through a lens of academic emphasis, collective efficacy and faculty trust, schools could create student-centered classrooms, complete with a new generation of rules and procedures for our schools. Parents would partner more closely and consistently in the instruction and discipline of their children due to increased faculty trust. Students would understand and respect the high level of academic achievement expected, and teachers would feel empowered to act in the best interests of their students. The potential for improvement is significant, in terms of engaged students working with efficacious stakeholders in an atmosphere of high expectations and rigor.

Later, Kirby and DiPaola (2009) added a different variable to the academic optimism model; their study added school climate, evaluated using the variable of community engagement,

to the research. A convenience sample of public school educators, participated in this study. It included teachers, counselors and other instructional staff members. Approximately 16% of the state's school districts were represented in this sample. Variables used in this study fell into three categories, two of which employed academic emphasis: academic optimism (using the three traditional components of faculty trust in students and parents, collective efficacy and academic emphasis), school climate (as defined by collegial principal leadership, teacher professionalism, community engagement and academic emphasis) and student achievement (measured by state end-of-course tests in Biology and History). Data were aggregated to the school level and, through the use of factor analysis, multiple regression and descriptive statistics, Kirby and DiPaola (2009) confirmed a significant relationship between community engagement and academic optimism, as well as between academic optimism and student achievement. In other words, developing collaborative partnerships with community members seemed to foster high levels of academic optimism.

Another entry on the short list of studies on academic optimism harkens back to Hoy, Hoy and Kurz's (2007) work with individual teachers. Fahy, Wu and Hoy (2010) extended the individual academic optimism model to high school teachers. Their two hypotheses, similar to those of Smith and Hoy (2007), included the following queries: did faculty trust in parents and students, collective efficacy and academic emphasis form an individual sense of academic optimism, and did a general disposition toward optimism correlate significantly with teacher academic optimism. Sixty-nine teachers taking graduate courses (at the University of Alabama, the University of Texas at San Antonio, The Ohio State University, and William and Mary) volunteered for this study and validated a new scale, resulting in alpha coefficients of .86 (trust), .81 (efficacy) and .92 (academic emphasis). An additional 61 practicing teachers, also taking

graduate courses at the aforementioned universities, took part in the research designed to address their hypotheses. Performance of a factor analysis and a simple correlation supported both hypotheses.

Additional variables allowed researchers to investigate the potential effects of academic optimism in other areas, such as discipline and school climate. Many investigations took place in Ohio, but other locations also formed the setting for a number of studies, such as an urban epicenter in Texas (Smith & Hoy, 2007) and the state of Virginia (Kirby & DiPaola, 2009). The populations from these posed some limitations, such as smaller scope (one district as opposed to an entire state). Other recommendations for future scrutiny included qualitative research, in order to garner additional information about the components which greatly contribute to school improvement. Another area of consideration is the area of potential, with its inherent resilience and strength, instead of weakness and helplessness (Hoy, Tarter, & Hoy, 2006). While myriad research could be done in the area of academic optimism, it will remain a valid construct – the prospect of overcoming socioeconomic status is especially attractive to all school stakeholders, especially in this age of accountability.

In order to understand this concept more fully and to develop a complete definition of academic optimism, each of its component parts of collective efficacy, faculty trust and academic emphasis will be reviewed in turn.

Efficacy

Several studies have touted the importance of efficacy in educational settings (Bandura, 1993; Caprara, Barbaranelli, Borgogni, & Steca, 2003; Goddard, 2001; Hoy, Sweetland, & Smith, 2002; Tschannen-Moran & Barr, 2004), which appears to explain its inclusion as a

component of academic optimism. This section presents a definition of efficacy, and explains the differences between collective and individual efficacy.

The relationship between student achievement and efficacy is well documented in the literature, which indicates that efficacy can have both positive and negative effects. Multon, Brown and Lent (1991) illustrate this fact, stating that those who excessively overestimate their academic ability tend to reach for things beyond their grasp. However those who greatly underestimate their efficacy can never know the satisfaction of attaining challenging learning goals (Multon, Brown, & Lent, 1991). Caprara concurs, stating that people have little to no incentive to reach for ambitious goals and persevere under challenging conditions unless they truly believe in their ability to produce that outcome (Caprara, Barbaranelli, Borgogni, & Steca, 2003).

Efficacy levels in principals have also been studied. Low levels of efficacy result in administrators' perceived inability to select appropriate strategies or change ineffective ones, resulting in burnout (Tschannen-Moran & Gareis, 2004). Tschannen-Moran and Barr (2004) discuss the impact of underachieving students on efficacy, stating that negative changes in climate could occur. Moreover, established norms with respect to efficacy, whether positive or negative, become "a stable component of the culture that requires substantial effort to change" (Tschannen-Moran & Barr, 2004, p. 191).

Luthans' (2002) meta-analysis of 114 studies found the link between efficacy and work-related performance is stronger than other factors such as goal-setting. Although this study does not pertain specifically to schools, it can certainly be transferred to that situation. Luthans highlighted Bandura's notion about the importance of confidence and its link to efficacy.

Confident individuals welcome challenges, exert more effort to reach goals and persist despite early failures or the presence of obstacles (Luthans, 2002).

Perhaps a confident individual exhibits significant amount of self esteem. Mruk (2008) discussed three definitions of self- esteem, the last of which fits this study. The first connected success to self- esteem, but neither competence nor success in and of themselves provides a sound foundation for sustaining self -esteem. Secondly, self- esteem was linked to one's perception of individual self-worth. This description was not ideal in Mruk's view, because high self-worth could have negative consequences, such as arrogance – certainly different from high levels of self- esteem. Mruk's preferred classification of self- esteem combines individual success and self-worth. A relationship between personal worth and personal efficacy optimized the potential of high levels of self-esteem.

Self-efficacy

Research on efficacious behavior comes from reflections upon self- efficacy. Self- efficacy is simply a belief in one's capacities (Crain, 2005) or task-specific self-confidence (McCormick & Martinko, 2004). Efficacy influences the manner in which people think and motivate themselves. Under duress, those with high levels of self-efficacy maintain a focus on task completion, while those with low levels of self-efficacy allow negative thoughts to paralyze them and prevent them from solving problems (McCormick & Martinko, 2004). Additionally, individuals with stronger levels of perceived self-efficacy set loftier goals and have a firmer commitment to the attainment of those goals (Bandura, 1993). In summary, efficacious individuals participate more readily in task completion, work harder, persist when faced with difficulties, and achieve at higher levels (Schunk & Pajares, 2001).

Bandura's work (1993) directly addressed self-efficacy through an individual's reflective appraisals of his/her performance. These evaluations were based on actual performance in the repeated success in tasks, and in vicarious experiences, where an individual observes the success of others and infers his or her own success as a result. In addition, verbal persuasion (such as pep talks) and physiological cues (physical signs, like tension, that indicate that a job is too difficult to complete) also served as examples of self-efficacy appraisals (Crain, 2005). Consequently, teachers who engaged in the reflective practices espoused by Bandura and Erikson (Crain, 2005) seemed to successfully develop high levels of self-efficacy.

In his explanation of the ways in which a high sense of efficacy enhances personal accomplishment, Bandura (1993) suggested that tasks were viewed as challenges rather than threats to be avoided. A high level of self-efficacy yielded a number of benefits, including developing a positive attitude. Failure was not regarded as inadequacy, but in terms of insufficient effort or deficient skills that are easily acquired. Moreover, strong efficacy levels were recovered after setbacks. Consequently, Bandura (1993) noted that poor performance levels could be an indicator of low levels of self-efficacy.

Later, Bandura (1997) turned his attention to the ways in which efficacy beliefs were shaped on an individual level. Four areas supported the development of efficacy beliefs through cognitive processing: mastery experiences, affective states, social persuasion and vicarious experiences. Mastery experiences demonstrated a considerable source of efficacy information, as did affective states; perceived levels of distress or success seemed to determine group performance. Additionally, social persuasion, perhaps through leaders exerting influence to accomplish a task, and vicarious experiences, like the replication of successful models in similar settings, both contributed to overall performance (Goddard, 2001).

A meta-analysis of factors affecting persistence and efficacy was conducted in 1991 by Multon, Brown and Lent. Thirty-nine studies were selected, involving high and low achieving students from elementary through college age, because of their focus on self-efficacy and academic performance or persistence. The relationship between efficacy beliefs and academic performance was significant. In addition, Multon and her colleagues found that self-efficacy seemed to have a stronger impact for students in poverty, and suggested that educators should find ways to develop efficacy in this population. They also found that levels of self-efficacy seemed higher for older students; Multon hastened to add that elementary school students would greatly benefit from efforts to develop efficacious behavior.

Efficacious behavior for students was susceptible to influences, such as instruction, according to Zimmerman (2000). Drawing heavily from the work of Bandura (1977, 1986, 1997), Zimmerman described student self-efficacy in terms of its level (dependency on the amount of difficulty of a certain assignment), generality (the transference of ability to other tasks) and strength (the degree of confidence that one could do a certain job). Self-efficacy was found to be situational, not necessarily transferable to another circumstance. In other words, student efficacy beliefs about successful achievement on a history test could differ from beliefs about a science test (Zimmerman, 2000, p. 83). Moreover, Zimmerman noted the predictive power of self-efficacy, in terms of student motivation, activity choices, emotional reactions, persistence and effort. Most importantly, self-efficacy predicted academic outcomes. “This empirical evidence of its role as a potent mediator of students’ learning and motivation confirms the historic wisdom of educators that students’ self-beliefs about academic capabilities do play an essential role in their motivation to achieve” (Zimmerman, 2000, p. 89).

It is important to discuss efficacy levels of administrators when considering schools and their success. Principals are viewed as change agents (Tschannen-Moran & Gareis, 2004) who lead school reform efforts. Tschannen-Moran and Gareis, in their 2004 work with principals, found that efficacious behavior was not necessarily transferable to other situations, as Zimmerman (2000) did. Tschannen-Moran and Gareis (2004) proposed three specific approaches for the development of self-efficacy. Guided mastery is the first. The goal here is to secure a level of competency through the use of modeling techniques. Cognitive mastery modeling is a second method. This helps individuals to learn and apply thinking skills to solve problems. The third strategy, self-regulatory competences, relies on individual reflective practices such as monitoring, appraisal, goal setting and other strategies (Tschannen-Moran & Gareis, 2004).

Research on parental efficacy is wide-ranging, covering a plethora of academic and nonacademic topics. de Montigny and Lacharité (2005) defined parental efficacy as “beliefs or judgments a parent holds of their capabilities to organize and execute a set of tasks related to parenting a child” (p. 390). Differences in levels of parental efficacy may be cultural, as Huang (1997) suggests. Asian parents tended to believe in effort, and had higher expectations for their children (Huang, 1997). However, Hughes and Kwok (2007) reported that African American parents communicated more frequently with teachers and were more likely to criticize teachers and the school than Hispanic parents.

Parent involvement emerged as another theme in the literature on parental efficacy. Anderson found that parent involvement was connected to higher student achievement levels (Anderson, 2007). Those who felt more confidence in their ability to parent their children were most likely to do so effectively, thus resulting in positive development outcomes for their

children (Gilmore & Cuskelly, 2009). Moreover, efficacious parents were moved to assist children with their homework, believing that teachers expected support and that parental assistance supported student achievement (Hoover & Dempsey, 2001).

Chen's (2002) findings uncovered predictors of self-efficacy in educators, affecting job performance, attitude and training proficiency. Those predictors included work experience, role clarity and psychological strain. Work experience was an important factor and those who perceived themselves as being prepared for the task at hand felt empowered to do the job well. The importance of role clarity, "the extent to which employees clearly understand what is expected of them" (Chen & Bliese, 2002, p. 550) was also crucial. These authors reported that the pressure to do a job well became overwhelming when a teacher was unclear about his or her role at work. Additionally, it was difficult for them to perform tasks under psychological strain. They recommended clarification of roles for improved levels of self-efficacy.

Collective Efficacy

Self-efficacy, a belief in one's capacities (Crain, 2005). Self-efficacy beliefs influence individual performance, according to Caprara et al. (2003); similarly, the sense of collective efficacy influences the nature of collective action. Collective efficacy, the shared conviction in the groups joint capability to organize and execute course of required action to produce a desired result (Bandura as cited in Tschannen-Moran & Barr, 2004), refers to a group or school faculty. Even though individual and collective efficacy are different constructs, they influence each other in a reciprocal fashion (Tschannen-Moran & Barr, 2004). Efficacious teachers try harder, allow for student autonomy in their management strategies, monitor the needs of their struggling students carefully, and work to alter students' perceptions of their ability (Ross et al., 2004).

Personal teaching efficacy promotes collective efficacy, which strengthens personal teaching efficacy (Hoy, Sweetland, & Smith, 2002).

Surprisingly, researchers report a dearth of research on the connection between collective teacher efficacy and student achievement (Tschannen-Moran & Barr, 2004). Goddard (2001) bemoans the lack of research in this area – despite its potential to facilitate a greater understanding of how organizations operate. However, there are a few several studies that offer significant contributions in this area and they are discussed in detail.

One of the studies, conducted by Goddard (2001), included a research question that described the construct of collective efficacy in urban elementary schools. The author defined the term as the perception of teachers' ability to balance personal competence with the demands of the task at hand. Goddard discovered that collective efficacy significantly related to differences between schools in student achievement, adjusting for student demographics and prior achievement. Finally, the findings appeared to have predictive power in terms of social cognitive theory: mastery experiences strongly related to collective efficacy.

Goddard performed a parallel study, also in 2001, which examined the relationship between individual teacher efficacy and collective efficacy in schools. Goddard and Goddard found that teacher efficacy was greater in schools with high levels of collective efficacy. In fact, collective efficacy explained all of the variance among the schools where teacher efficacy was studied. "When teachers tend to think highly of the collective capability of the faculty, they may sense an expectation for successful teaching and hence work to be successful themselves" (Goddard & Goddard, 2001, p. 815).

Tschannen-Moran and Barr (2004) explored the relationship between collective efficacy and student achievement. Data were aggregated to the school level, in order to measure

collective efficacy. A significant relationship was found between teachers' perception of collective efficacy and student achievement. In addition, no correlation was noted between socioeconomic status and collective teacher efficacy in this study. Whether a school educated students from high or low socioeconomic areas, no relationship was found to collective efficacy. These findings are contrary to the notion that schools with lower SES student populations tend to have lower levels of collective efficacy on their faculties and schools with higher SES student populations tend to have faculties with higher levels of collective efficacy (Tschannen-Moran & Barr, 2004).

Given the established predictive power of academic optimism, collective efficacy is a natural component of the construct. It clearly has an established relationship to student achievement, as does academic optimism. Collective efficacy beliefs produce a "sense of mission and purpose of a system, the strength of common commitment to what it seeks to achieve, how well its members work together to produce results and the groups' resiliency in the face of difficulties" (Bandura, 1997, p. 469). The relationship between collective efficacy and academic optimism is confirmed in terms of its role in promoting student achievement. Empowering teachers may, in fact, develop collective efficacy (Bandura, 1997).

Trust

A condition of collective efficacy has been faculty trust (Hoy, 2002) and the two constructs correlate strongly. Both components are necessary parts of academic optimism. Collective efficacy and trust are interdependent entities and each reinforces the other (Hoy 2002). The body of research on trust, like efficacy, is massive. Therefore, an investigation of an identified subset, namely trust in schools, will be discussed in this section. Rather than dealing

with all studies, these inquiries present the factors that contribute specifically to academic optimism.

Recently, a few experts organized this mammoth field into manageable sections. Hoy and Tschannen-Moran (1999) reported that over 150 articles have been written on trust from the 1950s through the 1990s, and summarized the emergent themes from these studies. These themes include the establishment of trust resulting from post-Cold War optimism; the development of trust as a personality trait; the conception of trust as a component of interpersonal relationships; and the formation of trust as a distinct subject of study in sociology, organizational science and economics. Adams (2008) carefully selected 31 empirical studies written between 1984 and 2007 on trust. He described five primary patterns of trust in schools: teacher to teacher, teacher to principal, teacher to student/parent, parent to principal and parent to school. From Kochanek's (2005) perspective, the body of research relative to schools is divided into two sections: one section that addressed school climate and another which centers on interpersonal relationships between individual school stakeholders, such as parents, teachers and students.

Another analysis by Forsyth (2008) organized the past twenty years of research on trust into three clusters, organized according to the university where key researchers performed their studies. The first cluster has two sections located at two different universities because Dr. Wayne K. Hoy performed research at both sites; he was the common denominator for this cluster. The first phase, located at Rutgers University, included an overview of trust while the second phase, housed at the Ohio State University, reevaluated previous research on trust. The next cluster was based at the University of Chicago, spearheaded by Drs. Anthony Bryk, Sharon Greenberg and Julie Kochanek; hallmarks of this endeavor were the development of the term

relational trust and an extensive treatise of teacher trust following the Chicago School Reform Act of 1988. The third and final cluster, associated with Drs. Patrick B. Forsyth, Curt M. Adams, Laura L.B. Barnes and Roxanne Mitchell, originated at Oklahoma State University. This group of studies was distinguished by substantive research in parent and student trust.

Although a plethora of research has been done on trust, many studies imply that trust is a multi-faceted construct that cannot be easily defined (Adams, 2008; Bryk & Schneider, 2003; Goddard, Salloum, & Berebitsky, 2009; Goddard, Tschannen-Moran, & Hoy, 2001; Hoy, 2002; Hoy, Smith, & Sweetland, 2003; Hoy & Tschannen-Moran, 1999; Smith, Hoy, & Sweetland, 2001; Tschannen-Moran, 2000). Different, though complimentary, definitions of trust exist. Some highlight the interpersonal nature of trust (Rotter, as cited in Smith et al., 2001), stating that this element is an expectancy held by a group that a promise and verbal agreement of another can be relied upon. Smith et al. (2001) took a slightly different perspective of trusting behavior, as being comprised of actions that increase one's vulnerability to another whose behavior is not under the command of the other. Going further, Smith (2001) described trust as a clear decision to cooperate with others, based on information about their personal qualities, while Tschannen-Moran (2000) defined a trustworthy person as one who is predictable, speaks carefully, treats promises seriously and is never deceptive.

Researchers report on different types of trust. Bryk and Schneider (2003) offered an account of relational trust, uncovered after ten years of study, which included personal regard and integrity, competence and respect; Kochanek (2005) concurred with those four components of trust. Seashore Louis (2007) explained that social trust manifests itself into relational trust and institutional trust. The former term, also called situated trust, was characterized by repeated interactions with others, leading to expectations specific to that group. The latter term, also

known as social contract trust, was the belief in appropriate behavior in an organized environment, based on the norms of that institution.

Some experts in the arena of trust (Forsyth, 2008; Goddard et al., 2009; Hoy et al., 2003; Kochanek, 2005; Tschannen-Moran, 2000) have embraced Hoy and Tschannen-Moran's (1999) description of the term, which consolidated 16 different conceptualizations (Goddard, et al., 2009) and was preceded by a sixth factor: vulnerability (Hoy, 2002). Vulnerability, which results from interdependence, was a necessary condition of trust. The level of comfort felt by a person or group in the midst of vulnerability speaks to the degree of trust; Hoy and Tarter (2004) posited that there is little need for trust without a sense of vulnerability. Therefore, willingness to risk is the degree of confidence one has in an environment of vulnerability, and affects the five facets of trust: benevolence, reliability, openness, competence and honesty.

Hoy and Tarter (2004) expanded on the definitions of these five components. Benevolence was the act of placing another's needs ahead of one's own. Parents who trusted educators to care for their children were confident that teachers will be consistently fair, compassionate, and benevolent. Reliability referred to the extent to which one can depend on another to perform as expected. In fact, reliability was more than dependability, because it served as a combination of dependability, predictability and benevolence. A definition of competence was the ability to perform as expected, consistent with appropriate standards for a given task (Hoy 2002). People were unwilling to trust anyone, be it a surgeon or a teacher, with a poor performance record whose competence was questionable. Openness was the degree to which relevant information was shared, and competence was the confidence that one possessed the skills to perform capably. For example, productive organizations had cultures of openness in which mistakes were freely admitted and addressed rather than hidden and ignored. Finally,

honesty was the act of engaging others with sincerity and truth (Goddard et al., 2009; Hoy & Tschannen-Moran, 1999). Consistency between words and actions was the foundation of truthfulness and integrity (Hoy & Tarter, 2004).

Research points to a number of areas in a school that were affected by high levels of trust; schools were, in fact, social institutions that regularly depend on the quality of the existing interpersonal dynamics (Goddard, et al., 2009). Trust played a factor in organizational effectiveness (Tschannen-Moran, 2000) and the organizational health (Smith et al., 2001) of schools, and contributed to an atmosphere conducive for innovation (Kochanek, 2005; Seashore Louis, 2007). Bryk (2003) listed the benefits of trust, including an increased disposition for positively receiving reform initiatives, a tendency to engage in meaningful dialogue with professional peers and a willingness to above and beyond the call of duty to support student achievement (Bryk & Schneider, 2003, p. 43). Goddard and associates (2009) found trust to serve as a mediator between school disadvantage, defined as socioeconomic status and the proportion of students of color, and academic achievement.

A significant theme found in the literature addresses the development of trusting relationship between teachers and students of different races. Garrett and associates (2010), whose study addressed Puerto Rican/Latino students, found great potential for student achievement through positive relationships with caring and sincere teachers. Hughes and Kwok (2007) reported that African American families were less likely to have positive school relationships that foster student achievement. Their research pointed to four distressing reasons for this result: a conflict between an assertive interactional style for African American students and a non-confrontational style for teachers; cultural differences between families and teachers; an assertive parental style for African Americans and teacher endorsement of racial or ethnic

stereotypes. Consequently, Hughes and Kwok stressed the importance of improving the quality of the home–school relationship, especially for African American and low income families, as well as an increased focus on helping teachers connect with students and their parents as the means of helping children at risk for academic failure get off to a good start in school.

Two studies performed within the past few years also tackled the issue of cultivating trusting relationships between home and school when racial differences exist between among the groups. Goddard, Salloum and Berebitsky (2009) discovered a strong, negative association between trust and racial composition, socioeconomic disadvantage and school size. Moreover, these authors stated that trust was more difficult to earn in schools with higher SES levels and more students of color (Goddard, Salloum, et al., 2009), and recommended that researchers investigate mechanisms for building and maintaining trust in disadvantaged schools; this assertion was made based on a reference from a previous work: teachers were less confident in their ability to build bridges of trust due to potential differences in cultural values and ethical standards (Goddard, Salloum, et al., 2009). However, this concern extended beyond socioeconomic status.

Beard and Brown (2008) performed a qualitative study with African American mothers with incomes in the mid to upper middle-class range (family minimum income was \$60,000), and found significant levels of distrust. Two factors prevented the establishment of a trusting relationship between home and school: a lack of communication and an existing achievement gap between Caucasian and African American students. “One implication from this study is that there is work yet to be done by school administrators and teachers toward bridging understanding and communication and developing stronger trusting relationships” (Beard & Brown, 2008, p.

483). The authors related the need for educators to confront differences together, and to overcome associated pathologies of difference.

Furthermore, several studies addressed the issue of distrust and its potentially destructive role in school settings. “Trust is a little like water – we all pay little attention to it until we need it but don’t have it” (Hoy, 2002, p. 88). Hoy and Tschannen-Moran (1999) stated that distrust tends to breed more distrust; broken trust can have a ripple effect throughout the organization. Distrust can impair organizational effectiveness and negatively impact communication (Tschannen-Moran, 2000). The absence of trust can result in controversy in the decision-making process; simple problems can seem insurmountable if involved parties do not trust each other (Bryk & Schneider, 2003). Seashore Louis (2007) suggested that further research was needed in this area.

When district and school administrators face a legacy of mistrust that reflects a deep sense that “the system” is unfair or unreliable, reclaiming it by working on relationships during a change process is unlikely to succeed. If relational trust is the only problem, then replacing a few people, buying doughnuts for meetings, or engaging in organization development might provide a rapid cure, but low relational trust may, under conditions of change uncertainty, morph into more deeply embedded institutional mistrust. Research has addressed how individual actors should behave to build trust, but not how to rebuild it when it had eroded (Seashore Louis, 2007, p. 20).

Smith and her colleagues (2001) added to the body of research in this area, noting that the identification of a problem as resulting from a lack of trust does not solve it. The benefits of trust, including academic achievement, can be cancelled out by distrust (Adams & Forsyth, 2009) among its stakeholders.

Despite the dangerous potential for a lack of trust between teachers and students, relatively little research is available about this important interaction (Adams & Forsyth, 2009). Assumptions might be made that students would readily trust their instructors, but “trust is not a programmed response” (Adams & Forsyth 2009, p. 265). Moreover, it is important to remember that students usually have more than one teacher, so student judgments about trust should be expressed as a collective instead of an individual referent. Student trust is also affected by student culture and collective norms affecting the history of teacher-student relationships in the school.

Consequently, Adams and Forsyth (2009) successfully labored to develop a valid, reliable scale that could be used in future studies to measure the strength of the level of trust students have for their teachers, called the Student Trust Scale. Collected evidence supported the usefulness of the scale for measuring perceptions of trust within student groups. Variance was noted and was attributed to student characteristics, such as ethnicity and gender; a convenient sample of 315 students in grades seven through nine within one suburban school district comprised the sample for this study. Forty-seven percent of the students surveyed were classified as receiving free or reduced lunch. The racial breakdown was relatively diverse, and included no Asian students, 12% Native American, 30% Hispanic, 32% African American and 25% Caucasian. Exploratory factor analysis was selected to examine the structure of the items in the scale. Concurrent and predictive validity tests were executed through a bivariate correlational analysis, along with a hierarchical growth model of language arts achievement. Student trust was not significantly related to ethnicity or gender, and proved to be a more potent predictor of achievement growth than other student characteristics. A valid and reliable tool for measuring student trust provides a mechanism for assessing the effects of school initiatives, and could help

practitioners better understand the causes and consequences of student trust (Adams & Forsyth, 2009).

Certainly, those interested in truly understanding school effectiveness “should include a focus on the ways in which trust relations may influence important outcomes such as achievement and the ways in which organizational context is related to trust” (Goddard et al., 2009). Many studies pointed out the strong relationship between trust and academic achievement (Bryk & Schneider, 2003); others touted trust as a predictor of student achievement (Hoy, 2002). Moreover, trust seems to be a significant factor in academic achievement over and above the influence of school context factors, such as socioeconomic status (Goddard et al., 2009).

Trust is a complex concept. However, this concept is a crucial ingredient in the success of a school. Credibility is perishable, and must be continually and consciously cultivated or it can wither away. In addition, Hoy (2002) reminds us that trust is too often used in a callous fashion. Simply asking a parent to “trust me” is a tall order in some cases, especially in schools with a history of low achievement levels. Principals ask for trust from parents and teachers, teachers insist that parents trust them to know what is best for their children and students are expected to trust their teachers, often with little evidence that this act will have positive results.

Trusting others implies a choice to risk what one really cares about in order to accomplish what cannot be done alone (Goddard et al., 2009). Studies done on the topic of academic optimism have a common definition of trust, namely the group’s willingness to be vulnerable to another party based on the confidence that the aforementioned facets exist: benevolence, reliability, honesty, openness and competence. Many studies over the years emphasized the importance of the relationship between teachers, students and parents (Hughes &

Kwok, 2007). Hoy and colleagues went further to describe Faculty trust as being comprised of teachers' trust in both students and parents (Hoy, 2002). The relationship between faculty trust in students in parents was identified in Hoy and Tschannen-Moran's work; this connection was "so strong that the trust for the two groups was indistinguishable" (Hoy & Tschannen-Moran, 1999, p. 205).

It may seem inappropriate to include parents in the construct of Faculty Trust. Parents may not usually be involved in the daily education of their children at school, so it may seem erroneous to place such significance on their relationship to the educational process. However, it is important to remember that schools do not exist in a vacuum, but are inextricable parts of the community in which they reside. "Schools can no longer be viewed as separate entities from the community in which they are located" (MacPherson & Carter, 2009, p. 9). In addition, the quality of parent-teacher and student-teacher relationships has consequences for children's achievement (Hughes & Kwok, 2007). Tschannen-Moran and Barr's (2004) work illustrated a positive correlation between efficacy and trust, stating that efficacious teachers provide support for parents and seek them out as partners in the education of their student. Moreover parent involvement, particularly in school-level decisions, is related to increased parent school satisfaction – particularly among parents of higher socioeconomic status (Tschannen-Moran, 2000).

As the second of three components of academic optimism, trust is a natural fit. Its relationship to collective efficacy (Hoy, 2002) could perhaps be explicated by their cognitive and affective roots; these elements relate to psychological research on optimism and hope.

Academic Emphasis

Strong correlations exist between faculty trust and academic emphasis as well, with regard to academic optimism. This section of the study lays a foundation for academic optimism, offers varying definitions of academic emphasis, reviews research on this topic and lists its benefits for schools. Both academic emphasis and enabling structures have a relationship to academic optimism, and this paper will explore that connection – especially with regard to student achievement.

Academic emphasis has other names, such as academic press and school level press for academic achievement (Forsyth, 2008). Regardless of the appellation, this construct is a well-researched component of academic optimism which predicts student achievement (Bower & Powers, 2010; Goddard et al., 2000; Lee & Smith, 1999a; Shouse, 1995, 1996, 1999), particularly in middle and high schools (Goddard et al., 2000). Academic emphasis may also decrease the dropout rate by increasing the importance on academic achievement (McNeal, 1997). Academic emphasis is also a vital component in decreasing achievement gaps between students from divergent socio-economic backgrounds (Bower & Powers, 2010; Shouse, 1996).

Some researchers posited that the definition of academic emphasis varies widely within the ranks of the literature and school practice (Bower & Powers, 2010). Descriptions encountered in the literature all seem to complement, rather than contradict, each other.

Academic emphasis is:

- the extent to which a school is driven by the pursuit of academic excellence – a press for academic achievement (Goddard et al., 2000; Hoy, Tarter, & Hoy, 2006, p. 427);
- focus on rigor and engagement in a learning task (MacPherson & Carter, 2009);

- school-wide environmental forces that push for student achievement (Murphy, Weil, Hallinger, & Mitman, 1982);
- faculty focus on student success in academics (Hoy & Hoy, 2009);
- achievement oriented norms, values and goals comprising some of the organizational characteristics that reinforce the significance of intellectual achievement (Shouse, 1999); and
- pressure toward a common purpose from which school stakeholders are not expected to deviate; an overall goal of conformity (Lee & Smith, 1999a).

McNeal's (1997) indicators of a school's emphasis on academic achievement include the number of visits from college representatives, availability of advanced placement courses, an average daily number of hours of assigned homework and the percentage of teachers with advanced degrees. Bower and Powers' (2010) own multifaceted description fits right in: academic climate, disciplinary climate, teachers' instructional practices, high expectations, completion of quality homework, clear goals and maximization of time spent on instruction. All of these definitions describe a school campus where academic achievement is possible for and expected of all students, with the differentiated, scaffolded support offered by personnel, policies and practices.

Edmonds' (1979) groundbreaking work on school effectiveness forms a foundation for academic emphasis. His identification of five factors (strong principal leadership, emphasis on basic skills, an orderly school environment, frequent student assessment and high expectations for students) that predicted student achievement demonstrates that socioeconomic status does not trump other components in the quest for academic excellence. Academic emphasis begins to emerge in the literature in the early 1980s, according to Phillips (as cited in Bower & Powers,

2010). Lee and Smith (1999a) linked academic emphasis to organizational theory and social support, arguing that both scaffold student achievement.

However academic emphasis could essentially backfire in schools. Without careful guidance, schools can place more importance on covering many curriculum topics rather than ensuring mastery of those concepts – this is contrary to the goals of academic emphasis. A focus on time constraints results in inconsistent weight placed on higher order thinking skills, thus derailing attempts to fully realize the promise of academic emphasis (Bower & Powers, 2010; Shouse, 1999). Competitive grading policies and serious penalties for failure could undermine or strain established bonds of trust and weaken the academic focus (Hoy & Hoy, 2009). Students attending low-achieving schools could become alienated when academic standards are elevated beyond what those children may consider reasonable (Lee & Smith, 1999b). Consistent expectations are also important; teachers should provide multiple points of entry to the curriculum so that all students have access to the highest levels of inquiry (Bower & Powers, 2010). Caution should be exercised with the mere use of the word “expectations” according to Shouse (1999), so that the term is not confused with academic standards. Shouse warns that academic standards could be watered down in order to meet teacher expectations for performance.

Moreover, one of the characteristics of a school that is “sick”, according to Hoy and Tarter (1997b), was a school lacking the internal pressure to achieve academic excellence. Academic life is not taken seriously by students or teachers; moreover, academically able students are scorned by their peers and envied by their teachers. A push for academic achievement in an environment where teachers do not feel efficacious results in frustration and failure (Hoy & Hoy, 2009). Conversely, in a school with a high degree of academic emphasis,

teachers set lofty but achievable goals for students in a serious, orderly learning environment (Goddard et al., 2000). Teachers who work in a school with high academic press were more likely to use a variety of instructional strategies, plan diverse lessons to attend to different learning styles, monitor and provide feedback on student progress more frequently, collaborate with colleagues, demonstrate collegial behaviors, and attend to their own professional learning (Goddard et al., 2000). In short, teachers believed that their students could achieve and students respected those who excel academically (Hoy & Tarter, 1997b). Students viewed these educators as caring individuals; caring teachers held their students to high academic expectations, knew who they were as individual human beings, and made classes interesting, engaging, and relevant to their students' lives (Ladson-Billings as cited in Garrett, Antrop-González, & Vélez, 2010).

Academic emphasis seems to be a construct that becomes evident on a school wide basis when implemented at the individual level. Certainly a more precise definition would be useful to schools. Understanding the strong connection between student achievement and academic emphasis, Bower and Powers (2010) believed that schools would be better able to replicate academic emphasis if clear parameters are established for its implementation.

Despite evidence of the significance of academic press for students, its implementation remains challenging for many schools – largely due to a lack of a clear definition. How can a school staff implement what they cannot operationalize within the context of their own building? Although departments of education encourage schools to raise the level of rigor, they often fail to provide schools with any concrete direction or strategies. (Bower & Powers, 2010)

Bower and Powers (2010) chose a microethnography framework for this qualitative study, which tells the story of a high poverty, low achieving elementary school located in the southeastern United States. 83% of the school's students received free or reduced priced meals, 39% of students in grades three through five scored at or above grade level in math and 16% of this same group scored at or above grade level in reading. Interviews with two administrators and five teachers, as well as classroom observations, focused on instructional practices, and pacing guides serve as data sources. Bower and Powers (2010) defined academic emphasis as a component arising from four themes: higher order thinking and real world application, accountability, collaborative planning and differentiation. Perhaps the Bowers and Powers' supposition that the resulting culture based on pacing guides – developed in order to ensure that all standards are “covered” – does not ensure mastery, thus shifting the importance to content and away from students. Clearly, as Bower and Powers (2010) noted, communication of a clear definition of academic emphasis to all stakeholders was vital for student success.

Moreover, the literature universally inferred that the culture of the school was irrevocably linked to academic emphasis (Goddard et al., 2000; Hoy & Hoy, 2009; Shouse, 1999). Goddard, Sweetland and Hoy (2000) explicitly stated that academic emphasis was a characteristic of school climate. The press to achieve was accompanied by social sanctions for those who do not; the greater the level of academic emphasis, the stronger the normative press for student academic achievement. Hoy and Hoy (2009) listed academic emphasis as one of seven dimensions of organizational health – a measure of the social climate of a school. In this setting, academic emphasis existed at the technical level, an area where teachers have responsibility and take control. Overall, school effectiveness required a focus on student learning and a rigorous instructional program (Goddard et al., 2000).

It is useful to organize the literature on academic emphasis into thematic areas for further analysis. Lee and Smith (1999b) set forth a framework that divides the research into two parts: teacher expectations for student learning and academic standards. Some studies fell into these categories, but others did not easily lend themselves to such classification. Two studies, Murphy's 1982 investigation and Bower and Powers' 2010 work, focused on classroom practices, such as teacher expectations. Goddard, Sweetland and Hoy's (2000) treatise on academic emphasis centered on school climate. However, it was perhaps Shouse's 1999 study on academic press that offered the most cogent structure: academic climate, disciplinary climate and teachers' instructional practices and emphasis.

A school's academic climate is evident through the number of advanced courses offered, such as physics, rather than general classes, like general science (Shouse, 1999). Outstanding performance is rewarded. Disciplinary climate is established when school stakeholders understand and respect the fact that education cannot occur in a disorderly environment. Schools must work to set up and maintain policies that clearly promote attendance and appropriate behavior. The third category is under the control and auspices of classroom teachers, who institute objective, challenging standards for student achievement, assign meaningful homework, promote a thirst for learning and provide timely, useful feedback to students and their parents.

An example of teacher instructional practices and emphasis is found in a study by Murphy and his colleagues (1982), who illustrated how academic emphasis was created, and discuss a connection between academic emphasis, school policies and classroom practices that facilitate student achievement. Their work resulted from a superintendent's directive to ascertain any practices and behaviors that could be linked to school effectiveness. Murphy and his

colleagues (1982) established a schematic in Figure 4 that described the development of academic emphasis in schools: a belief structure conceived by administrators and teachers leads to increased staff responsibility for student learning.

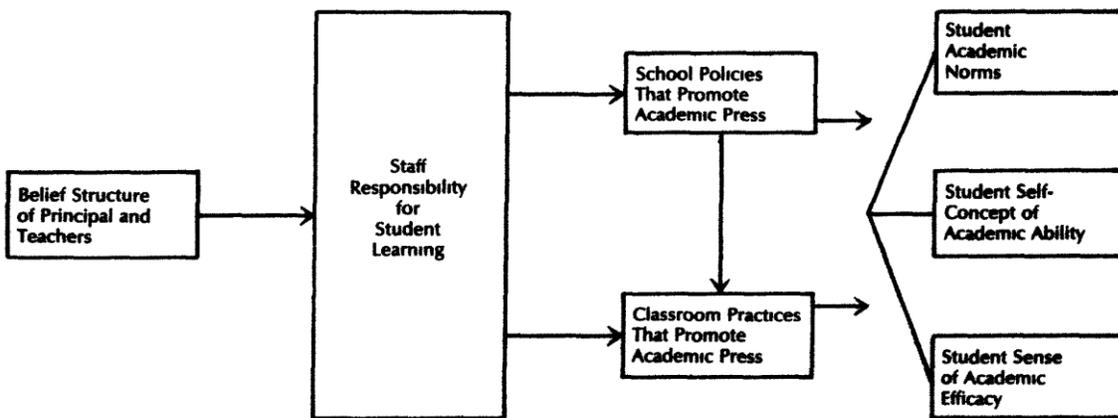


Figure 4. A Working Model of How Academic Press is Created in Schools

This responsibility resulted in the creation of both school-wide and classroom policies that enhance academic emphasis. Consequently, these policies cultivated student academic norms and increase students' self-concept of their academic ability and efficacy. The authors further developed the categories of school policy and classroom practice in order to support their connection between structures and the development of academic emphasis. Finally, the authors concluded that academic emphasis increases as expectations are raised.

An article by Lee and Smith (1999b) exemplified academic climate, positing that social support facilitated academic emphasis. Positive relationships developed in school helped students achieve. This was an extensive study, using survey data gathered from the Consortium for Chicago School Research. Approximately 30,000 sixth and eighth graders in 304 Chicago public schools responded to the survey. Hierarchical linear modeling was used, because of the

multilevel nature of the data, to determine a modest connection between social support and student learning. Academic press was loosely used in this study to describe the level of school achievement; schools with lower levels of academic achievement are dubbed “low-press” schools (Lee & Smith, 1999b). In general, the higher the level of press and social support, the higher level of academic achievement, operationalized through standardized test scores. Students with much social support learned a great deal if they were also fortunate enough to attend schools with high academic press.

Yet another example of academic climate was found in a qualitative study of high-achieving Puerto Rican males. Although academic emphasis is not mentioned, the definition of school-level press for academic achievement is inherent in this work. Like Murphy’s study, Garrett’s research (2010) identified several factors that contribute to high academic achievement: student participation in school and community-based extracurricular activities, affirmation of ethnic identity, reliance on family members (particularly mothers and sisters) as partners in the education of their children and the positive impact of caring educators on establishing high expectations for the education of their students. However, this study focused on a particular ethnic group, namely Puerto Rican male high school students. One school was purposely selected, because of its high level of poverty (55% of students fell below the established poverty line), its high level of diversity (70% of the student body were non-Caucasian, with Puerto Rican students making up 15% of that total) and its high level of rigor (AP classes were offered, and 70% of school graduates attended college). This study was limited by its small sample size – only three students took part in this qualitative study. Transcripts were analyzed using both coding and the phenomenological process, designed to uncover themes in the data. Protocols used for interview design elicited information about student school experiences, namely school

background, current experiences with teachers and connections between schooling and future goals.

Goddard and colleagues (2000) offers research that encompasses both academic climate and teacher instructional practices. Several studies (Fahy et al., 2010; Garrett et al., 2010; Hoy, Tarter, & Hoy, 2006; Lee & Smith, 1999b; Lee, Smith, Perry, Smylie, & Consortium on Chicago School Research, 1999; McNeal, 1997; Middleton & Midgley, 2002; Shouse, 1995, 1996) researched effects of academic emphasis on secondary schools, but this work focused on elementary school students and how school effectiveness can improve in a school climate characterized by high levels of academic emphasis. Forty-five out of fifty elementary schools in a large, urban Midwestern district participated in this study, and surveys were collected from 442 teachers – more than 99% of that number was usable. The researchers used an 8-item scale from the Organizational Health Inventory for Elementary Schools as its measure of academic emphasis, and hierarchical linear modeling serves as the analysis vehicle. Academic emphasis was found to associate positively with student achievement.

Hoy, working with Sweetland and Smith (2002) found a connection between collective efficacy and academic press. Researchers discovered that, while academic press was positively and significantly related to achievement, the addition of collective efficacy to the list of predictors reduced the individual influence of academic press. In essence, the impact of academic press was increased through collective efficacy.

The construct of academic emphasis, i.e. school-wide environmental forces that push for student achievement (Murphy et al., 1982), was a potent entity that contributed significantly to student achievement. Academic emphasis combined with the other two components of academic optimism (faculty trust and collective efficacy) to make a potent formula for school success.

Sprinkled throughout the body of literature on these three components were bits of evidence that indicated the richness of the soil prepared for academic optimism. Tschannen-Moran and Barr described collective teacher efficacy as a powerful factor that affects attitudes, affective, behavioral and motivational aspects of teacher functions within a school; academic optimism was comprised of cognitive (such as collective efficacy), behavioral (academic emphasis) and affective (faculty trust) features (Hoy, Tarter, & Hoy, 2006).

Academic Optimism and Enabling Structures

Two studies have a similar research interest, in that both investigate relationships between enabling structures and student achievement. First of all, McGuigan and Hoy (2006) focused on elementary school principals and the extent to which an administrator could develop a culture of academic optimism that improved student achievement. Enabling structures was added to the framework of academic optimism to determine a potential relationship to student achievement. Enabling structure was a construct that denoted school effectiveness by facilitating the work of teachers (McGuigan & Hoy, 2006). For example, schools with enabling structure utilized both a hierarchical configuration and rules as mechanisms to support teachers rather than vehicles to abuse the authority of administrators (Hoy & Sweetland, 2001). Forty rural and suburban elementary schools in Ohio comprised the population for this study; all schools' socioeconomic status fell in the middle to upper part of the spectrum.

Data were analyzed using a second-order factor analysis for academic optimism, and zero-order correlations indicate relationships between the components of academic emphasis, collective efficacy and faculty trust and student achievement, as measured by reading and math scores on standardized tests. Finally, path analysis confirmed the model above. The findings pointed to a connection between academic optimism and school achievement that was strong

enough to completely remove the influence of socioeconomic status as a predictor of achievement. Consequently, academic optimism became the significant factor explaining academic achievement (McGuigan & Hoy, 2006). Furthermore, the authors found that enabling structures enhanced academic optimism, and suggested that enabling structures was a significant factor in the development of an optimistic culture.

One of the most recently published investigations on this topic also aligns closely with this study. In 2010, Beard, Hoy and Hoy published their work on individual academic optimism and enabling structures. Three hypotheses framed the researchers' inquiry, regarding the existence of academic optimism as a latent construct, a correlation of academic optimism with a disposition toward optimism and a correlation of individual academic optimism with the teacher's perception of enabling structures. Two hundred sixty elementary school teachers, including 58 rural, 112 suburban and 90 urban elementary schools, from 14 school districts in Ohio comprised the sample. For this study, a confirmatory factor analysis, using structural equation modeling, was executed. These analyses confirmed each of the aforementioned hypotheses, and the correlation between academic optimism and a teacher's disposition toward optimism was significant. Moreover, the relationship between enabling structures and academic optimism was significant.

Other studies on enabling structures appear to suggest a potential relationship to academic optimism, thus lending credence to this inquiry. Sweetland's (2001) study offered tangential references to trust and collective efficacy, thereby supporting the supposition that enabling structures provided an entry into academic optimism through its individual components. Sweetland defined three hypotheses for his work:

- *The more enabling the structure of schools, the greater the extent to which teachers have authentic interpersonal relationships with each other.* Inherent in this hypothesis are the notions that positive interpersonal relationships foster trust and teachers who trust each other are more willing to engage in practices that foster school improvement (Bryk & Schneider, 2003).
- *The more enabling the structure of schools, the greater the extent to which principals have authentic interpersonal relationships with their teachers.* This hypothesis lays a foundation for the school leader to establish trusting relationships with their subordinates. Trust is a vital component of a productive environment because it enables the bureaucracy to function effectively (Hoy & Sweetland, 2001).
- *The more enabling the structure of schools, the greater the extent to which teachers feel a sense of power.* This power could also lead to efficacious behavior; efficacious behavior fosters a sense of accomplishment and a positive attitude (Bandura 1993).

Conclusion

The models for enabling structures and academic optimism have been confirmed in a number of settings, such as schools with urban, high poverty and mixed socioeconomic status student populations. Both constructs have demonstrated relationships to student achievement, thus a study linking these entities should prove to be helpful to school stakeholders. In terms of the body of literature, this inquiry adds a new dimension by using a mixed methods approach to data analysis in order to collect quantitative and qualitative data. Certainly, the potential exists for enabling structures and academic optimism to have a significant influence on our schools. With the right factors in place, educators could implement successful structures in our schools,

nurture our students, hold them to high but achievable standards and, consequently, watch students thrive.

CHAPTER 3: METHODOLOGY

This chapter presents the research design for this study, including the sample, respondents, survey instruments, data collection procedures, data analysis and limitations. The purpose of this study was to examine relationships between enabling structures, academic optimism and student achievement in a sample of elementary schools in the state of Alabama. This study was important and significant for several reasons. First, research was performed in the southern United States, a part of the country where few investigations have been based. Second, this investigation examined whether academic optimism served as a mediator between enabling structures and student achievement. Although this inquiry replicated work done by McGuigan and Hoy (2006), where the relationship between enabling structures, academic optimism and student achievement in elementary schools was the central focus, the prospect of academic optimism serving as a mediator variable extended McGuigan's study, thus adding a novel perspective to the literature. Baron and Kenny (1986) laid the foundation in the literature regarding mediator variables, and it is their seminal work that has been applied to this study.

Additionally, the use of multiple measures to represent student achievement made this inquiry unique. Finally, this investigation served as the first to have utilized mixed methods to ascertain the extent of the relationships between enabling structures, academic optimism and student achievement in elementary schools. The analysis of qualitative data provided the opportunity to uncover specific structures which could contribute to student achievement, thus adding a new dimension to the research on this topic.

Research Questions

The following research questions were addressed in this inquiry.

1. To what extent are enabling structures related to student achievement, controlling for socioeconomic status?
2. To what extent is academic optimism related to student achievement, controlling for socioeconomic status?
3. Does academic optimism mediate the relationship between enabling school structures and student achievement, controlling for socioeconomic status?
4. To what extent do teachers view policies and procedures related to enabling structures and academic optimism as facilitators of their success?

Research Design

Of the studies that have been undertaken on academic optimism in the past (Beard, 2008; Beard, Hoy & Hoy, 2010; Bevel, 2010; Brown, Benkovitz, Muttilo & Urban, 2011; Fahy, Wu & Hoy, 2010; Hoy, Hoy & Kurz, 2007; Hoy, Tarter & Hoy, 2006; Kirby & DiPaola, 2009; Kirby, 2010; MacPherson & Carter, 2009; Mascal, Leithwood, Straus & Sacks, 2008; McGuigan, 2005; McGuigan & Hoy, 2006; Smith & Hoy, 2007; Smith, 2009), some focused on individual teachers (Beard, Hoy, et al., 2010; Fahy, Wu, et al., 2010; Mascal, Leithwood, et al., 2008; Hoy, Hoy, et al., 2007) while others addressed the school as a whole (Bevel, 2010; Brown, Benkovitz, et al., 2011; Hoy, Tarter, et al., 2006; McGuigan & Hoy, 2006; Smith & Hoy, 2007). This study aggregated responses from elementary school teachers to the school level, similar to McGuigan and Hoy's (2006) inquiry.

The relationship between enabling structures and academic optimism was under review in this study, and the data set allowed for mixed method analysis. The quantitative part of the investigation used the tests for mediation to investigate the relationship between enabling structures, academic optimism and student achievement, while the qualitative section employs content analysis to address the connection between enabling structures and academic optimism. Moreover multiple measures, both criterion-referenced and norm-referenced tests in reading and mathematics, were used to represent student achievement; previous studies utilized criterion-referenced tests to symbolize student achievement.

Instrumentation

The independent variables in this study were enabling structures and academic optimism, as measured by its components of academic emphasis, collective efficacy and faculty trust. Two different survey instruments, combined into one document, were used to collect data on these variables. Both instruments were created and validated by experienced researchers whose work has been cited in this study, and each survey has been utilized extensively. In order to address the fourth research question, an open-ended query (*What policies or procedures have been implemented by your school administrator that help you do your job better?*) was added to the survey document to gather qualitative information.

Enabling Structures Instrument

The instrument used to determine relative levels of enabling structures, also known as enabling bureaucracy, was called the Enabling School Structure form or ESS. ESS was used to address the first three research questions. This document was designed to measure the extent to which school structure is perceived as enabling rather than hindering the teaching and learning in the school (Beard, 2008). ESS (see Appendix 1) was a twelve question survey with a five-item

Likert scale. According to the established scale, ranging from 1 to 5, lower scores pointed to more hindering school structures and higher numbers indicated more enabling structures.

Available responses were “never”, “once in a while”, “sometimes”, “fairly often” or “always”.

Hoy and Sweetland (2001) developed this tool, which has had a consistently high reliability score of at least .90 (Hoy & Sweetland, 2000, 2001).

Academic Optimism Instrument

The School Academic Optimism Survey (SAOS) was also used to address the first three research questions. It included thirty questions, designed to address each of its component parts: academic emphasis, collective efficacy and faculty trust (see Appendix 2). Designed by Dr. Wayne Hoy, this instrument was developed using Albert Bandura’s social cognitive and self-efficacy theories, James Coleman’s social capital theory, Wayne Hoy and his colleagues’ work on culture and climate, and Martin Seligman’s study of learned optimism (Hoy, 2006).

SAOS contained thirty questions, the first twelve questions of which covered collective efficacy. The following ten questions, 13–22, addressed faculty trust and the final eight questions concentrated on academic emphasis. All of the academic emphasis questions were worded in a positive manner, while the remainder of the questions on the academic optimism tool had a mix of both positive and negative language. Likert-type scales were used for SAOS with options ranging from either 1 to 6 (collective efficacy and faculty trust: “strongly disagree”, “disagree”, “somewhat disagree”, “somewhat agree”, “agree” or “strongly agree”) or 1 to 4 (academic emphasis: “rarely”, “sometimes”, “often”, “very often”) as choices for each query.

Although reliability data were available for enabling structures, no overall reliability of academic optimism has been developed because this variable was constructed from the average of all three of its components (academic emphasis, collective efficacy and faculty trust). Validity

and reliability for SAOS was reported separately according to each individual component of academic optimism. However, alpha coefficients of at least 0.83 were found in previous studies (Hoy, Tarter, et al., 2006; McGuigan & Hoy, 2006; Smith & Hoy, 2007) for faculty trust, collective efficacy and academic emphasis.

Sampling Procedures and Data Collection

One thousand ninety-three elementary (1093) schools served students in the state of Alabama, and 489 schools were selected at random to survey. Fourth grade was chosen as the desired grade to measure student achievement, primarily because it serves as the second time elementary students took a high-stakes standardized test. Although K–6 comprised elementary grades in Alabama, schools with different configurations (such as K–12) were sampled in this study because the requisite grades were encompassed in the building. Socioeconomic status (SES) data were collected for each school for comparison purposes. This information was readily available on the state department of education web site. The unit of analysis was the school, and survey responses were aggregated to the school level; this facilitated the study of collective efficacy and school level academic optimism as opposed to those components referencing individual teachers (namely, self-efficacy and individual academic optimism).

Permission was received from the IRB office to conduct the study (see Appendix 3). Then, the school database from the Alabama State Department was consulted to review the elementary school population using its list of email addresses and phone numbers for each school. Questionnaire responses were gathered electronically using an electronic program called *Qualtrics* (www.qualtrics.com). The researcher contacted either the superintendent of a district (if several schools from that district were selected for participation) or the principal of an individual school to request their consent to survey the school faculty. Once permission was

granted a unique link, generated by the *Qualtrics* program, was emailed to each principal with the expectation that the information would be forwarded to each certified teacher in the school. In some cases, the principal directed the researcher to send the link directly to the school faculty, and the researcher complied.

The creation of a unique link allowed the researcher to aggregate responses to the school level for analysis. Moreover, using a unique link made it possible to recognize the school from which the survey came without identifying individual teachers, thus granting anonymity to each respondent. Each teacher took the survey toward the end of the 2010–2011 school year over the course of several weeks, and this process was repeated in the fall of the subsequent school year in order to increase the response rate in previously surveyed schools and the overall number of participating schools.

Survey collection efforts were affected by a number of factors. Some schools experienced changes in administration, and thus declined to participate. One principal transferred to central office administration in the second month of the school year and declined to participate so as to refrain from adding to established teacher responsibilities and perceived stress about a new administrator. Two districts were undergoing political turmoil, resulting in the subsequent firing of a superintendent in one case and the closing of several schools in another system, so responding to an optional survey at the request of a doctoral student was not a priority.

Once data were collected, they were downloaded from *Qualtrics* into separate Microsoft Excel files. Quantitative data were uploaded from the Excel file into SPSS for analysis. The separate document with qualitative data was organized by school; a number was assigned to each facility and all replies from that building were placed in one column of the Excel file. Therefore,

in the database, the location of each cell formed the unique number that represented an individual response from that school. For example, the seventh response in the column for school with number 79 was labeled 79-7.

Data were also collected which delineated the academic progress of the surveyed schools. The state of Alabama used four assessment measures to determine student achievement, and their online database was accessed to gather test results for all participating schools. Questions from both the criterion-referenced tests in reading (CRTR) and mathematics (CRTM) and the norm-referenced tests in reading (NRTR) and mathematics (NRTM) measured academic achievement. Since scores from all four tests determined Adequate Yearly Progress (AYP) for each school, all four assessments were used in this study in the analysis of student achievement. Because survey distribution occurred in the spring and fall of 2011, standardized test data (CRTR, CRTM, NRTR and NRTM) from the spring 2011 administration of those tests was collected.

Data Analysis

The first step in the analysis process was to test assumptions in order to confirm that the data set satisfied the requirements for normality and variance (Ross & Shannon, 2008). Skewness and kurtosis scores supplied information regarding the organization of the data, while Cronbach's alpha figures ascertained the internal consistency of the reliability of scores. Next, a list of appropriate procedures was developed to address each of the research questions. Table 1 displays the research questions along with corresponding data and analysis methods.

Table 1

Summary of Research Questions and Analysis Tools

Research Question	Data	Analysis
1. To what extent are enabling structures related to student achievement, controlling for socioeconomic status?	Surveys, scores on criterion-referenced and norm-referenced tests	Descriptive statistics, Correlations, Regression
2. To what extent is academic optimism related to student achievement, controlling for socioeconomic status?	Surveys, scores on criterion-referenced and norm-referenced tests	Descriptive statistics, Correlations, Regression
3. Does academic optimism mediate the relationship between enabling school structures and student achievement, controlling for socioeconomic status?	Surveys, scores on criterion-referenced and norm-referenced tests	Hierarchical regression
4. To what extent do teachers view policies and procedures related to enabling structures and academic optimism as facilitators of their success?	Open-ended survey question	Content analysis

Descriptive statistics were computed, including means for each component of academic optimism (academic emphasis, collective efficacy and faculty trust), as well as for enabling structures, the percent of responses per school and response rates. These statistics provided an overview of the schools which responded to the survey. Data on the socioeconomic status (SES) of each school were also reported – SES represented the percent of students receiving free or reduced priced meals.

All three research questions were addressed through correlations and hierarchical multiple regression. Special attention was devoted to the regression models for each measure of student achievement (CRTR, CRTM, NRTR, NRTM) in order to ascertain the unique relationship that enabling structures and academic optimism contributed to the model (Morgan, Reichert & Harrison, 2002).

In order to tackle the third question regarding regression, the research questions were organized so that the three required steps taken to support mediation could be easily followed, according to the process outlined by Baron and Kenny (1986). First of all, the first independent variable (enabling structures) should correlate with the mediator (academic optimism). Secondly, the mediator variable should correlate with the dependent variable (student achievement). Finally, in order to indicate mediation, the mediator should predict the dependent variable when controlling for the initial independent variable. Full mediation occurs for academic optimism when the overall effect of the independent variable, enabling structures, on the dependent variable, student achievement, is reduced to zero.

The fourth research question was answered by using qualitative analysis tools. Instead of aggregating responses to the school level, the decision was made to analyze the data set as a whole. The qualitative method of content analysis has been described in previous studies

(Anfara, Brown, & Mangione, 2002; Bogden & Biklen, 2007; Patton, 1990). Data were reviewed for patterns, according to this process (Patton, 1990), and phrases were recorded to represent topics. These topics developed into overarching categories according to the constructs under review (including enabling structures, academic optimism, academic emphasis, collective efficacy and faculty trust), thus providing a framework to organize individual responses. Entries with multiple statements were separated into single responses and assigned to the aforementioned categories. The iterative process of reviewing and categorizing entries continued until saturation occurred. At this point, organization of the data allowed for thorough analysis.

Additional examination of the qualitative data during the sorting process revealed what seemed to be notable similarities and differences when schools were arranged according to performance on norm-referenced tests. Consequently, for organizational purposes, all schools were coded according to their performance on the student achievement measure. Some schools were listed as lower performing schools (LPS), others were described as higher performing schools (HPS) and the remaining schools were termed performing schools (PS). Each response was assigned a unique identifier for easy reference. For example, response HPS129-6 was the sixth response from the higher performing school numbered 129.

Limitations

The study had a number of limitations. The intended scope of this study was the group of elementary schools in the state of Alabama. Because of the unlikelihood of expecting responses from all schools in the state or from teachers in each school, the results may not be generalized to other states. Additionally, a unique link to the survey instrument was sent to some K–12 schools in hopes that it would be forwarded only to elementary teachers in grades K–6, but teachers in other grades may have responded. The timing of the survey may have discouraged teacher

completion; myriad tasks required attention at the end of the school year and teachers may have simply disregarded the survey for lack of time. Those teachers asked to respond to this survey at the beginning of the school year may have simply dismissed the request in favor of concentrating on required school responsibilities. Finally, although it was hoped that teachers answered all questions honestly some, particularly those in schools with coercive school structures, may have felt pressured to respond in ways that placed their schools in the most positive light. A larger sample may have helped to mitigate this possibility.

Data collection would have been challenging with any online method; Roberts (2004) confirmed that a low response rate was associated with surveys, as opposed to measures used for qualitative studies. Mascall and his colleagues (2008) confirmed this in their investigation, where their response rate was less than 20%. Access to the World Wide Web was available to most school districts, but reception could have been spotty at best in some schools – especially in rural areas. Although teachers in those schools might have had better access to the Internet at home, it is unlikely that a survey such as this would have been completed after school hours. Moreover, access to the instrument did not guarantee survey completion.

Summary

This chapter presented the methods in detail. It is believed that new ground will be broken by this study, as the findings will determine whether academic optimism mediates the relationship between enabling structures and student achievement. It also adds a unique perspective since it examines the issues addressed using multiple measures of student achievement. Qualitative examination of these constructs, although limited in this inquiry, presents an additional new perspective with regard to enabling structures and academic optimism, and the execution of the research in a Southern state follows a recent trend of studies

located in that part of the country. The next chapter presents an overview of the findings. This is followed by two manuscripts presenting the details of each aspect of the study.

CHAPTER 4: RESULTS

This chapter presents the findings of the study. As explained in Chapter 1, the purpose of this study was twofold. The primary purpose was to examine relationships between enabling structures, academic optimism and student achievement. A secondary purpose was to discover teacher perceptions of the importance of the presence of enabling structures and academic optimism in their schools as factors in their success. Four research questions were addressed:

1. To what extent are enabling structures related to student achievement, controlling for socioeconomic status?
2. To what extent is academic optimism related to student achievement, controlling for socioeconomic status?
3. Does academic optimism mediate the relationship between enabling school structures and student achievement, controlling for socioeconomic status?
4. To what extent do teachers view policies and procedures related to enabling structures and academic optimism as facilitators of their success?

Data Collection Procedures

The study used a mixed methods design. Two instruments, one measuring enabling school structures and the other measuring academic optimism, were combined into a single form for data collection purposes. An open-ended question was added to the document to gather qualitative information. Participation requests were sent at random to 489 out of 1093

elementary schools located in a Southern state. Survey data were collected from 759 teachers in 65 schools. One hundred seventy responses were incomplete and thus unusable, resulting in 589 teacher responses included for analysis at the school level. Of those surveyed schools, 14 were urban (21.5%), 22 suburban (33.8%) and 29 rural (44.7%). Response rates per school ranged from 10.6% to 93.8%, with an overall average of 30.7%. This inquiry focused on schools serving fourth grade students and 6 schools without grade four were inadvertently surveyed, so 524 responses from the 59 schools were available for analysis. The response rate, calculated as 12.1%, was low.

Several issues arose during the data collection process. Each school district had different protocols – some required that permission be granted through the superintendent or his/her designee, while principals in other systems reserved the right to decide whether to participate or not. Superintendent assent did not guarantee principal or teacher participation; one superintendent of a small, rural system readily consented, but no responses were collected from either of the two identified schools. One urban school district had recently switched over to a new email system; the researcher discovered this after a phone conversation with a principal. Thirty-three survey requests had to be resent (two schools from that district ultimately consented to participate). Some of the entries from the state database were inaccurate, resulting in emails being sent to the wrong persons. Rural areas had varying levels of internet access, thus making teacher access to surveys difficult during the school day (likely the most convenient method for encouraging a higher response rate).

However, strategies were employed to increase the response rate. Some administrators consented to survey distribution on the premise that teachers would not be pressured to respond, so reminders were carefully worded to encourage action instead of adding another demand on

teachers' time. Established relationships with administrators who were interested in this study facilitated compliance with the request to participate. Moreover, some requests were sent to schools in which principals had already earned their doctorate, in hopes that they would commiserate and consent to allowing their faculty to participate; this strategy had limited success. Administrators were only required to forward a link to teachers – little effort was necessary on their part. Electronic data collection allowed for questionnaire completion at the discretion of the participant, either at school or in another setting – ideally at a time where disruptions are minimized.

Responses were downloaded from SPSS into a Microsoft Excel database in order to separate the qualitative information from the quantitative data. Each cell, representing an individual teacher response from a unique school, was coded. Content analysis provided the framework for analysis of the responses (Anfara, Brown, et al., 2002; Patton, 1990). Initially, responses were organized into the categories of time, communication and the three components of academic optimism (academic emphasis, collective efficacy and faculty trust); many of the replies seemed to fall into these categories. Enabling structures seemed to be manifested in the teachers' responses as time and communication processes. Additionally, entries were color-coded in order to further reflect patterns and trends. As the data were analyzed for patterns, and coded to represent topics, categories were reviewed in order to provide an accurate framework to organize individual responses. The decision was made to amend the list of categories to enabling structures, academic optimism and proactive administrator action. This study also established subcategories within the overall list, in order to better organize responses and report existing trends.

In order to address the third research question dealing with student achievement, all schools were assigned a code according to their academic performance on the norm-referenced measures in reading and mathematics (NRTR, NRTM). Seven of the schools were coded as lower performing schools (LPS), seven different schools were assigned as higher performing schools (HPS) and the remaining 51 were listed as performing schools (PS). Each response was assigned a unique identifier for easy reference. For example, entry PS306-4 is the fourth entry from the performing school numbered 306.

Data Analysis

Descriptive data – such as student achievement information about each participating school, computed means for variables – were gathered. Assumptions were tested in order to ascertain normality and variance of the data set. For this mixed methods investigation, the qualitative tool of content analysis was utilized to respond to the fourth research question while the first three research questions were answered using the quantitative methods of correlations and hierarchical regression.

Assumptions

Tests were conducted to determine whether the data met the necessary assumptions. The first assumption was that the data were normally distributed. Table 2 displays skewness statistics, which were used to address this assumption.

Table 2

Descriptive Statistics of the Variables Including Reliability

Variable	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach's alpha
Enabling Structures	2.61	4.93	4.22	0.39	-1.47	3.53	0.89
Collective Efficacy	3.28	5.50	4.46	0.52	-0.10	-0.35	0.87
Faculty Trust	2.67	5.24	4.42	0.62	-0.24	-0.61	0.94
Academic Emphasis	1.88	3.88	3.15	0.37	-0.81	1.23	0.88
Academic Optimism	2.76	4.90	3.91	0.48	-0.30	-0.19	
Socioeconomic Status	17.3%	97.9%	64.8%	0.25	-0.20	-1.21	
Percent of Teachers							
Responding per							
School	8.62%	93.8%	30.6%	0.18	1.67		
Student Achievement							
CRTR	67.6%	100%	88.2%	0.07	-0.83	0.37	
CRTM	50.0%	96.8%	83.7%	0.10	-1.06	1.11	
NRTR	36.0%	88.0%	61.8%	0.14	-0.09	-1.11	
NRTM	36.0%	87.0%	65.6%	0.11	-0.27	-0.68	

Socioeconomic status was defined as the percentage of students receiving free or reduced priced meals. Criterion-referenced (CR) student achievement measures were percentages of students earning a passing or exemplary score. Norm-referenced (NR) tests measured percentage of student responses correct from 1-99 percent.

Each variable had a negative skewness value, indicating that data points were clustered on the negative side of the distribution. In fact, the skewness statistics for the independent variables of enabling structures and academic emphasis were -1.47 and -0.83 respectively, indicating a larger degree of skewness for those variables than for collective efficacy (-.10), faculty trust (-.24) and academic optimism (-.30). The skewness values of those three variables were closer to zero, demonstrating a negative distribution. A review of the kurtosis statistics revealed a relatively high level for enabling structures, 3.53, suggesting that the data were located closer to the center for that construct. This single violation of the assumption of normality did not prevent further analysis (Ross & Shannon, 2008).

For each dependent variable regarding criterion-referenced tests in reading and mathematics (CRTR, CRTM) and norm-referenced tests in reading and mathematics (NRTR, NRTM), the researcher reviewed the associated regression plots and scatter diagrams in order to test assumptions of variance in the data. With regard to three of the dependent variables, no violations of linearity, homoscedasticity or normality were evident. Concern about heteroscedasticity arose upon close inspection of the plot for the norm-referenced test in reading (NRTR). However, since the violation of this assumption appeared to be minor, the researcher proceeded with data analysis.

Descriptive Statistics and Reliability

The researcher obtained student achievement data for fourth grade students on both the criterion-referenced tests (CRT) in reading and mathematics and the norm-referenced tests (NRT) in reading and mathematics from the publicly available database developed by the state department of education. CRT scores were reported in terms of the percentage of students who earned either a passing score (Level III) or a high passing score (Level IV); those scores were

combined into a single value. Average scores for surveyed schools, found in Table 2, were relatively high. On the average, for the criterion-referenced tests, 88.2% of students in surveyed schools earned a Level III or IV on CRTR and 83.7% of students in surveyed schools earned a Level III or IV on CRTM. Norm-referenced test scores were reported in percentiles for schools in this inquiry and were lower than the corresponding criterion-referenced tests. NRTR and NRTM were recorded as 61.8% and 65.6% respectively, meaning that students in surveyed schools scored at those respective percentiles on the norm-referenced test in reading and mathematics. Information presented in Table 2 illustrated less variance in CRT scores than in NRT scores.

Reliability statistics were computed on these independent variables: enabling structures, collective efficacy, faculty trust and academic emphasis. Because academic optimism is constructed as an average of its components (academic emphasis, collective efficacy and faculty trust), reliability statistics were not calculated. Descriptive statistics summarized the variables under review in the study. Of the variables discussed in this section, enabling structures, academic optimism and its components of collective efficacy, faculty trust and academic emphasis and SES all had a standard deviation less than one, as shown in Table 2.

In addition, all constructs were valid according to computed Cronbach's alpha statistics. The alpha coefficients were high for this sample, ranging from 0.87 for collective efficacy to 0.94 for faculty trust.

Two instruments, the Enabling School Structure form (ESS) and the School Academic Optimism Survey (SAOS), were combined into a single document to collect data for this study. SAOS included the components of academic emphasis, faculty trust and collective efficacy. ESS scores ranged from 1 (never) to 5 (always). For the SAOS, both collective efficacy and faculty

trust scores varied from 1 (strongly disagree) to 6 (strongly agree); academic emphasis scores ranged from 1 (rarely) to 4 (very often). Means were calculated for academic emphasis, collective efficacy and faculty trust question sets; reverse scoring was used prior to computation of means to account for negative wording of some statements (“Students here just aren’t motivated to learn”) (Hoy, Tarter, et al., 2006). An overall score for academic optimism was computed for each school by averaging the totals for its component values of collective efficacy, faculty trust and academic emphasis. Values listed in Table 3 indicated the relative amount of enabling structures, academic emphasis, collective efficacy, faculty trust and academic optimism that could have been present in each school.

In order to measure socioeconomic status (SES) in each school, the percent of students receiving free or reduced priced meals was obtained from a public database on the state department of education web site. The SES for schools in this study ranged from 17.3% to 97.9% and the overall average SES of the sample, 64.8%, ranked above the state average of 56%. The computed standard deviation statistic (0.25) indicated that most of the schools’ SES level was located near the mean.

Findings Associated with Enabling Structures, Academic Optimism and Student Achievement

Both qualitative and quantitative methods were employed to respond to the four research questions. Most of the findings were consistent with researcher expectations.

Table 3 has summarized the correlations between enabling structures (ESS), academic optimism (AO), its component measures of collective efficacy (CE), faculty trust (FT) and academic emphasis (AE), and student achievement (CRTR, CRTM, NRTR, NRTM).

Table 3

Correlations between Major Variables

Variable	ESS	CE	FT	AE	AO	CRTR	CRTM	NRTR	NRTM
ESS	1	.50**	.42**	.75**	.57**	.15	.14	.26*	.31*
CE		1	.95**	.82**	.98**	.59**	.39**	.70**	.69**
FT			1	.75**	.96**	.56**	.35**	.69**	.65**
AE				1	.89**	.51**	.45**	.60**	.65**
AO					1	.60**	.43**	.72**	.72**
SES	-.07	-.72**	-.75**	-.40**	-.68**	-.52**	-.35**	-.72	-.65**

** $p < 0.01$, * $p < 0.05$

Relationships between enabling structures and both norm-referenced tests (NRTR and NRTM) were significant, because p values were less than 0.05. However, the relationship between enabling structures and both criterion-referenced tests (CRTR and CRTM) was not significant. Correlations presented in Table 3 addressed the first three research questions, as listed below.

To what extent are enabling structures related to student achievement, controlling for SES? Enabling school structures (ESS) did not correlate significantly with either criterion-referenced test in reading ($r = .15$, p not less than .05) or mathematics ($r = .14$, p not less than .05), because the correlations did not reach an established level of significance (p values equal 0.22 and 0.30 for CRTR and CRTM respectively). An established level of significance, as noted by the correlations, was found for both enabling structures and the norm-referenced tests in reading ($r = .26$, $p < .05$) and mathematics ($r = .31$, $p < .05$). Therefore, significant and positive relationships existed solely between enabling structures and the norm-referenced measures of student achievement (NRTR, NRTM).

Additional information was gleaned from the hierarchical regression models for the criterion-referenced and the norm-referenced variables, presented in Tables 4 and 5 respectively. Hierarchical regression was utilized in order to ascertain the extent to which the independent variables, enabling structures and academic optimism, predicted student achievement, as operationalized by the dependent variables of the criterion-referenced and norm-referenced measures in reading and math when controlling for SES. Each hierarchical regression was performed in the same manner; SES was entered in the first step, followed by enabling structures and academic optimism in the subsequent second and third steps. Controlling for SES made it possible for the researcher to determine the influence of the remaining independent variables (enabling structures and academic optimism) on student achievement. Each of the four models representing criterion-referenced tests in reading (CRTR) and math (CRTM) and norm-referenced tests in reading (NRTR) and math (NRTM) was analyzed in turn.

A review of the regression models provided information about the unique contribution of enabling structures when controlling for SES. The regression models appeared to support data from the bivariate correlations that enabling structures had a significant relationship with both of the norm-referenced tests and with neither of the criterion-referenced tests. R^2 Change values for CRTR, CRTM, NRTR and NRTM were 0.01, 0.01, 0.04 and 0.07 respectively, indicating that enabling structures accounted for 7% or less of the variance for each model. Moreover, the squared semipartial correlation provided information about how much R^2 decreases if enabling structures was removed from the regression equation. For both norm-referenced tests, sp^2 indicated a substantial part correlation; enabling structures seemed to uniquely contribute to R^2 over and above SES. Conversely, sp^2 did not reach established levels of significance with either criterion-referenced test with regard to enabling structures. p values associated with F-change

statistics (CRTR: F-change = 1.02, $p = 0.32$; CRTM: F-change = 0.85, $p = 0.36$; NRTR: F-change = 5.50, $p = 0.02$; NRTM F-change = 7.87, $p = 0.01$) revealed levels of significance with NRTR and NRTM according to Table 5; conversely, p values for CRTR and CRTM were greater than 0.05 respectively as seen in Table 4.

Table 4

Hierarchical Regressions of SES, ESS and AO on CRTR and CRTM

	Dependent Variables							
	CRTR				CRTM			
	R ² Chng	F-Value	β	sp ²	R ² Chng	F-Value	β	sp ²
Step 1								
SES	0.28**	21.63**	-0.52	0.27**	0.12**	7.95**	-0.35	0.12**
Step 2								
SES			-0.52	0.27**			-0.34	0.12**
ESS			0.11	0.01			0.12	0.01
R ² Change	0.01	11.33**			0.01	4.39*		
Step 3								
SES			-0.07	0.00			-0.02	0.00
ESS			-0.25	0.03			-0.14	0.01
AO			0.70	0.13**			0.49	0.06*
R ² Change	0.13**	13.10**			0.06*	4.58**		
R ² Tot. (adj)	0.42				0.19			

** $p < 0.01$; * $p < 0.05$

Table 5

Hierarchical Regressions of SES, ESS and AO on NRTR, NRTM

	Dependent Measures							
	NRTR				NRTM			
	R ² Chng	F-Value	β	sp ²	R ² Chng	F-Value	β	sp ²
Step 1								
SES	0.52**	62.71**	-0.72	0.52**	0.42**	41.41**	-0.65	0.42**
Step 2								
SES			-0.71	0.50**			-0.63	0.39**
ESS			0.21	0.04*			0.27	0.07**
R ² Change	0.04**	36.58**			0.07**	27.14**		
Step 3								
SES			-0.42	0.07**			-0.30	0.03
ESS			-0.03	0.00			0.00	0.00
AO			0.45	0.05**			0.51	0.07**
R ² Change	0.05**	29.91**			0.07**	23.45**		
R ² Tot. (adj)	0.61				0.56			

** $p < 0.01$; * $p < 0.05$

To what extent is academic optimism related to student achievement, controlling for SES? Collective efficacy significantly correlated with the criterion-referenced tests in reading and mathematics (CRTR and CRTM) respectively ($r = .59, .39, p < .01$), as well as with faculty trust ($r = .56, .35, p < .01$), academic emphasis ($r = .60, .65, p < .01$) and academic optimism ($r = .60, .43, p < .01$). The norm-referenced tests in reading and mathematics also indicated a significant relationship with collective efficacy ($r = .70, .69, p < .01$), faculty trust ($r = .69, .65, p < .01$), academic emphasis ($r = .70, .69, p < .01$) and academic optimism ($r = .72, .72, p < .01$) respectively. Correlations indicated a significant relationship between academic optimism and all four achievement measures, including criterion-referenced (CRTR and CRTM) and norm-referenced (NRTR and NRTM) tests at $p < 0.01$.

The regression models provided additional information about the unique contribution of academic optimism when controlling for SES; a significant relationship was verified with all four measures of student achievement, as demonstrated by data from the bivariate correlations. In this case, R^2 Change values for CRTR, CRTM, NRTR and NRTM were 0.13, 0.06, 0.05 and 0.07 respectively, indicating that academic optimism accounted for more variance for each model, overall, than enabling structures. Values for sp^2 reached established levels of significance for all four measures of student achievement, indicating the unique contribution of academic optimism to R^2 above and beyond SES and enabling structures. Associated p values corresponding to F-change statistics (CRTR: F-change = 12.14, $p = 0.001$; CRTM: F-change = 4.42, $p = 0.04$; NRTR: F-change = 7.75, $p = 0.007$; NRTM F-change = 8.66, $p = 0.005$) further supported a significant relationship between academic optimism and all four measures: CRTR, CRTM, NRTR and NRTM.

Does academic optimism mediate the relationship between enabling school structures and student achievement, controlling for SES? In order to address this question, each of the requirements for mediation must have been met; a test that established full mediation for the independent variable of academic optimism had four steps (Baron & Kenny, 1986; Kenny, 2008, 2011). Figure 5 illustrates these steps as they apply to the variables under study: the independent variables (enabling structures and academic optimism) and the dependent variable (student achievement).

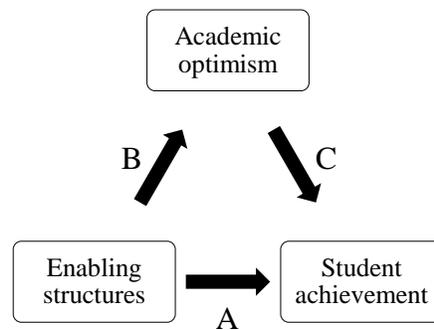


Figure 5. Academic Optimism as a Mediator between Enabling Structures and Student Achievement

The mediator variable under review was academic optimism. First of all, in order to confirm the mediating relationship, enabling structures must have correlated with student achievement (A). Secondly, enabling structures must have correlated with academic optimism (B). Next, academic optimism should have demonstrated predictive power with respect to student achievement (C). Finally, in order to establish full mediation, the overall effect of enabling structures on student achievement should have been reduced in the model in the presence of academic optimism. Kenny (2011) explained that only partial mediation was possible if the first three steps in the mediation process were met, meaning that the net effect of

enabling structures on student achievement was not zero. The findings in this inquiry pointed toward academic optimism operating as a partial mediator between enabling structures and the measures of student achievement, as noted in Tables 4-5.

Since enabling structures was not significantly related to either of the criterion-referenced tests, mediation was explored solely with the norm-referenced measures of student achievement. To test for mediation, the hierarchical regression was performed in order to determine whether enabling structures predicts the unique variance for each of the remaining dependent variables (NRTR and NRTM), as indicated in Table 5.

The researcher began by exploring the potential of academic optimism to mediate the relationship between enabling structures and the norm-referenced test in reading (NRTR). The first test of mediation was met because a significant correlation with enabling structures was evident ($.26, p < .05$). The second test for mediation was also met because of the positive significant relationship between enabling structures and academic optimism ($.57, p < .01$). Academic optimism predicted NRTR in the third step, as affirmed by Table 5, where the standardized Beta weight for academic optimism (.45) was greater than that of enabling structures (-.03) and SES (-.42). However, when controlled for academic optimism, the overall influence of enabling structures was negative, indicating the strength of the relationship of academic optimism on the model. Moreover, Table 5 indicates that the standardized Beta weight for enabling structures in the second step of the hierarchical regression model was reduced from 0.21 to -0.03 with the addition of academic optimism. Therefore, academic optimism operated as a mediator between enabling structures and the norm-referenced test of student achievement in reading (NRTR).

Mediation tests for academic optimism and NRTM were also based on information found in Table 5. The first test for mediation was met – enabling structures and NRTM correlated at a significant level (.31, $p < .05$). Just as for NRTR, the norm-referenced test for reading, the second test for mediation was also achieved because of the positive significant correlation between enabling structures and academic optimism (.57, $p < .01$). Academic optimism predicted NRTM in the third step of the process, as affirmed by Table 5, where the standardized Beta weight for academic optimism (.51) was greater than that of enabling structures (.00) and SES (-.30). The standardized Beta weight for enabling structures was reduced in this model from 0.27 to zero; each data point was rounded to the hundredth decimal place. Although it may appear that the standardized beta coefficient for enabling structures was zero in the presence of academic optimism, it was actually .002. Nearly full mediation was present in this case, since enabling structures seemed to have no relationship with NRTM after controlling for academic optimism in the fourth. Academic optimism served as a partial mediator between enabling structures and the norm-referenced test of student achievement in mathematics (NRTM).

To what extent do teachers view policies and procedures related to enabling structures and academic optimism as facilitators of their success? Results of the analysis of responses to an open-ended question (“What policies or procedures help you do to your job better?”), using content analysis, answered this question. The findings seemed to indicate that teachers perceived a variety of procedures related to enabling structures and academic optimism were pivotal to their success in the classroom.

Three hundred fifty-two (352) out of 589 teachers (59.8%) chose to respond to the open-ended question. Of that number, 299 gave a single answer and 53 teachers provided two or more different responses to the question. The multiple response entries were separated, reviewed and

categorized, resulting in 118 distinct responses from those 53 teachers. Overall, 417 individual entries were available for analysis from the sample group of 352 teachers.

Data were organized according to the constructs and components under review in this study (enabling structures, academic optimism, academic emphasis, collective efficacy and faculty trust). However, a third category, Proactive Administrator Action, emerged from the data. Findings related to these three areas and the outcomes regarding the relationship of enabling structures, academic optimism and student achievement are present in the sections that follow.

Enabling Structures

Two hundred twenty-two of the 417 responses (53.2%) delineated specific structures that were implemented in their school at the time of the survey. Most of those responses fell into the subcategories of time, effective scheduling and consistent implementation of discipline plans. Other entries referenced their school's teacher observation process, specific curricular structures (such as the cycle of instruction and the Alabama Reading Initiative), instructional strategies (such as formative assessment) and implementation of the school's continuous improvement plan.

Time seemed to be a valuable commodity to teachers. Instructional time appeared to be precious, because teachers appreciated structures which limited classroom disruptions, whether from the office ("fewer intercom interruptions", PS310-3) or from parents ("Parents not being allowed to roam the building..." PS225-7). Teachers seemed to routinely meet about student progress, and were grateful to have had the time to review student progress with their peers in order to modify instruction. In fact, collaborative planning was mentioned on several occasions:

“Time is set aside weekly to plan for students with team members and weekly faculty meetings to learn new ideas” (LPS28-6).

A subcategory of enabling structures, closely related to the category of time, was the thoughtful, deliberate use of a schedule to organize the school day. Thirty-eight teachers referenced effective scheduling procedures: “My school administrator has implemented an overall master schedule for our grade level, which helps everyone stay on the same pace. It also utilizes our time with the students very well” (PS179-5). Teachers welcomed efforts to proactively schedule the school day, whether that effort was initiated by their administrator or by other teachers. In addition, it appeared that they viewed the outcome of the scheduling to be an overall improvement in teaching and learning. Teachers also seemed to value specific, protected blocks of time woven into the master schedule to teach certain subjects (“90 minutes of uninterrupted reading block” HPS339-2) or to intervene with struggling students (“We have a time built into our schedule that allows teachers extra time with students who are struggling”, PS356-6).

Also emerging from the data set as a subcategory of enabling structures was having an organized, school-wide plan for addressing disciplinary issues. Teachers seemed to welcome this structure, and it seemed to facilitate effective instruction. Forty-nine statements referenced school behavior plans or procedures to reward good behavior. Positive Behavior Supports (PBS), a disciplinary system designed to proactively teach and reward positive behavior instead of emphasizing negative behavior, was mentioned by name in 6 of the 49 replies regarding discipline procedures. One teacher explained the relationship between such a system and time management: “The positive behavior support plan helps manage student behavior so class time can be used effectively” (PS201-16).

Academic Optimism

Statements regarding academic optimism and its components of academic emphasis, collective efficacy and faculty trust were plentiful in the data set. Responses regarding academic emphasis were reported most often, and seemed to be manifested in schools by policies and procedures which facilitated high expectations. For organizational purposes, high expectations and academic emphasis were used interchangeably.

As the most widely reported component of academic optimism, 34 statements reflected high expectations. Teachers conveyed the importance of being held accountable by their administrators, and seemed to value the existence of clear guidelines for behavior, instruction and performance: “Our principal is in and out of our rooms, so the visible presence of administration supports us as teachers and helps us to be held accountable” (PS306-5). Teachers also seemed to desire equitable treatment (“Our Principal treats everyone fairly”, LPS142-4), and seemed to appreciate their administrators for holding consistent professional expectations for them (“High expectations and follow up on those expectations”, HPS129-4; “My school administrator has high expectations for his staff and for student achievement”, PS195-3).

However, academic optimism, collective efficacy and faculty trust were also clearly present in the data set. Academic optimism manifested itself in statements which described the atmosphere of the school; six statements regarding the school environment were submitted. Three of these statements directly referred to a positive atmosphere, but one statement seemed to encapsulate the nature of this construct: “Our principal has been able to create a ‘family’ in my school, allowing teachers to work collaboratively more often. While this is not a ‘policy’ it is essential” (PS311-5). Teachers acknowledged and seemed to genuinely appreciate the

establishment of a positive work environment (“She does her best to support us and promote a positive atmosphere”, PS141-6).

Collective efficacy and trust were the least often reported elements according to submitted responses. Collective efficacy was most frequently demonstrated through procedures or philosophies that empowered teachers, such as the ability to develop the master schedule or the assignment to a leadership team that revised the school’s improvement plan. “I’m not sure about specific policies and procedures, but I do think that the fact that our administration puts a lot of stock in individual teachers’ “teacher judgment” helps all of us to be more productive and feel more accomplished and successful here at our school” (PS299-7). Working on leadership teams also facilitated teacher efficacy. One response aptly expressed the spirit of collective efficacy: “We are all in this together. Everyone helps. It is not all on the classroom teacher’s back” (PS225-10). Similarly, trust was either overtly stated in the data or implied through expression of the freedom to innovate and develop effective instructional strategies that could positively impact student achievement. A trusting relationship between teacher and administrator is inherent here: “Our principal simply lets us do our job with micromanaging or questioning our teaching styles” (PS360-8).

Proactive Administrator Action

The third overarching category for the data was termed proactive administrator action, and covered the subcategories of professional development, relationships with parents and communication. A few statements discussed communication systems in the school, such as “an instant message system, to cut down on intercom interruptions during class time” (HPS339-4). It seemed that both verbal and nonverbal forms of communication were valued by teachers. The importance of listening to teacher concerns was expressed (“He listens and takes into

consideration what teachers say and how they feel”, PS179-3). Additionally, teachers seemed to appreciate the apparent accessibility of their administrators in order to share their ideas (“She has an open door policy; therefore, I can approach her about anything and she will consider my requests/suggestions”, PS1852-2). Communication with parents was also noted. Moreover, comments regarding positive phone calls, conferences and problem-solving with parents were recorded. Only one communication statement was made by an LPS teacher, and no comments by LPS teachers were made about parents at all.

The other subcategory of proactive administrator action was professional development, which surfaced in 24 responses. “Professional Learning sessions on various topics of interests were planned during the year to keep us abreast of innovative issues in education” (PS141-9). Faculty/grade level meetings were often the source of professional learning (“The school has implemented workdays for teachers to be able to plan better for subject matter material to help ensure better learning for the students”, PS1887-2). One teacher stated that professional development occurred, but the principal chose the topics. Other teachers cited professional development in particular programs, such as *the Seven Habits of Highly Effective People*, as being noteworthy. Four teachers mentioned mentoring programs as being helpful, and four other responses listed technology workshops as being effective. Moreover, book studies on a variety of topics (“Book study on strategic teaching, book study on classroom management”, PS52-2) were also listed as being beneficial to teachers’ professional growth.

Enabling Structures, Academic Optimism and Student Achievement

Close inspection of student achievement data led to the decision to further classify the schools. Seven schools were identified as higher performing (HPS) and seven were identified as

lower performing schools (the remaining 51 schools were designated as performing schools (PS)). Tables 6 and 7 have summarized the demographic data of these schools.

Table 6

Demographic Data for HPS Schools

Schools	SES	NRTR	NRTM
HPS			
129	95.6%	88.0%	84.0%
221	24.7%	82.0%	77.0%
245	25.8%	85.0%	87.0%
267	17.6%	80.0%	75.0%
339	35.2%	79.0%	81.0%
415	60.5%	76.0%	80.0%
1035	17.3%	82.0%	81.0%
Minimum	17.3%	76.0%	75.0%
Maximum	95.6%	88.0%	87.0%
Average	39.5%	81.7%	80.7%
Standard Deviation	0.29	0.04	0.04

The standard deviation of the HPS schools illustrated the range of SES for these schools. In addition the average SES for HPS schools, 39.5%, was significantly lower than the average of the total data set, 65.2%. The standard deviation for the norm-referenced tests in reading and math was expectedly small, since all of the schools in this group achieved at a relatively high level.

Table 7

Demographic Data for LPS Schools

Schools	SES	SAT-10 Reading	SAT-10 Math
LPS			
28	63.2%	37.0%	50.0%
38	53.7%	40.0%	49.0%
100	89.3%	41.0%	49.0%
134	94.1%	47.0%	49.0%
142	92.3%	46.0%	49.0%
202	96.5%	37.0%	47.0%
1299	94.2%	41.0%	51.0%
Minimum	53.7%	37.0%	47.0%
Maximum	96.5%	47.0%	50.0%
Average	83.3%	41.3%	49.1%
Standard deviation	0.17	0.04	0.01

The standard deviation for the LPS schools was smaller than that of the HPS schools, but remains comparatively large; SES was not clustered very tightly together for this group of schools. However, the average SES for these schools, 83.3%, was significantly higher than the average of the total set of schools. As for HPS schools, the standard deviation for both standardized tests was small, because all schools achieved on the lower end of the scale.

When data was clustered according to achievement, patterns emerged. A thorough review of the responses revealed these patterns between the higher performing schools (HPS) and the lower performing schools (LPS); there were 7 schools in each group. First of all, HPS

teachers responded in greater numbers (38) than LPS teachers (32). Only one negative statement was collected from the HPS schools versus 4 negative statements from LPS schools; two statements were submitted from the same school. HPS respondents recorded nearly twice as many trust statements (7) as LPS teachers (4). Enabling structures statements were plentiful in both settings and expectations seemed to be high for both HPS and LPS schools as noted by teacher responses. In addition:

- More statements regarding effective communication were reported by HPS teachers
- Fewer statements regarding trust and efficacy were made by LPS teachers
- About the same number of statements regarding expectations and school policies were documented by both HPS and LPS schools.

Conclusion

The purpose of this mixed methods inquiry was to examine relationships between enabling structures, academic optimism and student achievement and to discover teacher perceptions of the relationship of their success to enabling structures and academic optimism using both quantitative and qualitative methods. The quantitative part of the inquiry addressed the issue of mediation, seeking to ascertain whether academic optimism mediated the relationship between enabling structures and student achievement, while the qualitative section analyzed responses to an open-ended question in order to reveal specific structures which seemed to pave the way for teacher success.

Academic optimism served as a mediator between enabling structures and the norm-referenced tests in reading and math; no mediation was found with the criterion-referenced measures of student achievement. Content analysis revealed specific structures which, according to teacher perceptions, facilitated their work. Those structures were sorted by theme and

organized into the categories of enabling structures, academic optimism and proactive administrator action.

A discussion of the findings and recommendations for future research are contained in the manuscripts presented in Chapters 5 and 6, which expound upon the quantitative and qualitative research in this study.

CHAPTER 5. MANUSCRIPT 1: EXAMINING ACADEMIC OPTIMISM AS A MEDIATOR BETWEEN ENABLING STRUCTURES AND STUDENT ACHIEVEMENT

The seemingly trite notion that all students can achieve at high levels should be the mantra of every school, every educator, every parent and every student. Research on high-performing school districts suggests that the concept, *all students can learn*, is more than mere rhetoric (Cawelti, Protheroe, et al., 2001). Admittedly, there is no foolproof way to guarantee student success and a plethora of strategies are needed for any school to ensure that all students consistently achieve academically (Scott, Duffrin, Kelleher, & Neuman-Sheldon, 2009).

Schools are under intense pressure to ensure that students consistently demonstrate what they know and are able to do (Ashby, 2009; Craig, et al., 2005; Harris, 2006; Linn, 2003; Scott, Duffrin, et al., 2009; Stuit, 2010; Tehrani, 2007). Expectations for schools have increased dramatically in recent years as a result of a federal mandate, the Elementary Secondary Education Act (ESEA), commonly referred to as No Child Left Behind. This legislation was designed to address several goals, including stringent accountability measures for non-performing schools and the use of research-based teaching methods (New Jersey Department of Education, 2010), but provided little guidance for implementing new strategies or procedures required for restructuring schools (Center on Educational Policy, 2009). Unfortunately, the ESEA has resulted in relatively few and small improvements in academic achievement (Rouse & Barrow, 2006). As schools struggle to meet the requirements of this mandate and foster student

success, researchers have tried to assist in the process by investigating attributes of successful schools.

Research points explicitly toward factors that can impede student achievement. Contrary to popular belief, intelligence and ability are not the sole determinants of students' classroom successes (Snyder, et al., 2001). Student socioeconomic status (SES) has been, perhaps, the most widely researched factor; SES is associated with poor academic progress (Ashby, 2009; Harris, 2006; Kannapel & Clements, 2005; Kim & Sunderman, 2005; Rouse & Barrow, 2006; Sawhill 2006; Scott, Duffrin, et al., 2009).

Decades ago, Coleman (1966) shocked the educational community with research findings that indicated that school characteristics had no connection to student achievement. More than a decade passed before Edmonds (1979) refuted Coleman's work with his own, identifying several effective school characteristics such as high expectations for student achievement, frequent and systematic student assessment and an emphasis on basic skills. Later, Stedman (1987) offered inconclusive evidence that specific structures consistently contributed to student achievement in a positive way.

Many seemed to accept the notion that a student's education should reflect his or her innate ability; this idea went largely unchallenged for the first three quarters of the twentieth century (DuFour, DuFour, et al., 2004, p. 19). However, since the Coleman study, many researchers have refuted his claims and demonstrated that students from low SES backgrounds need not be relegated to failure (Ashby, 2009; Blankenstein, 2004; Cawelti & Protheroe, 2003; DuFour, Dufour et al., 2004; Rothman, 2001).

A number of structures have long been associated with student achievement and linked to successful schools. DuFour and his colleagues (2004) list several features common to high

performing schools, regardless of grade configuration, geographical area, ethnicity or student SES. One common thread is high levels of efficacy, resulting from effective professional learning communities. Additional features seemed to manifest themselves through efficacious behavior, such as a collaborative culture, an emphasis on results and a commitment to tackle problems together. Davenport and Anderson (2002) also found several characteristics for effective schools, such as strong instructional leadership by administrators, a clear instructional focus and high expectations for student achievement. Brown, Benkovitz, Muttillio and Urban (2011) went further, identifying characteristics of schools that maintained a low achievement gap between students of wealth and poverty, such as a teamwork approach to problem solving, a strong sense of purpose and high expectations for students. These features seem to share commonalities with two constructs, enabling structures and academic optimism, both of which have consistently demonstrated a strong connection to student achievement.

Purpose of the Study

The literature includes only one study which examined the relationship between enabling structures, academic optimism and student achievement (McGuigan & Hoy, 2006), and this study will supplement that investigation and augment the body of work. The purpose of this study is to examine relationships between enabling structures, academic optimism and student achievement. Another purpose is to determine whether academic optimism serves as a mediator between enabling structures and student achievement.

Conceptual Framework

Research on academic optimism and enabling structures confirms that each construct has, independently, established significant relationships with student achievement (McGuigan & Hoy, 2006). Academic optimism, as described by Hoy, Tarter and Hoy (2006), is the collective

confidence that the faculty can make a difference, high academic standards can be reached and students can learn — given a positive, trusting relationship between students, parents and faculty. Enabling structures are defined as practices that facilitate teacher work through policies and procedures set forth in a school (McGuigan & Hoy, 2006). An overview of these two constructs follows.

Academic Optimism

In their quest to find school attributes that affirm academic achievement, Hoy and colleagues (2006) developed the term academic optimism. It is a research-based construct with excellent potential for positively correlating to student achievement. Three elements comprise the academic optimism construct (Hoy et al., 2006): collective efficacy, faculty trust in students and parents and academic emphasis. Several studies (Fahy, Wu, et al., 2010; Hoy, Tarter, et al., 2006; Hoy, Hoy, et al., 2007; McGuigan & Hoy, 2006; Smith, 2009; Smith & Hoy, 2007) have confirmed that collective efficacy, faculty trust and academic emphasis seem to reinforce each other to predict student achievement. Bower and Powers (2010) posited that student success results from a communication of academic press to all stakeholders – thus supporting the relationship between academic emphasis and faculty trust. As all stakeholders agree on high academic expectations, all parties support each other and trust that each will do his or her part to facilitate student success. In this model, academic learning is the shared responsibility of teachers, students and parents (Shouse, 1999). When teachers trust parents, faculty members can insist on higher academic standards with the confidence that their efforts will not be undermined by parents which, in turn, reinforces faculty trust (Hoy, Tarter, et al., 2006).

The other two components of academic optimism are functionally dependent upon each other. Collective efficacy enhances trust, and trust in parents and students encourages collective

efficacy in the school faculty. In addition, when the faculty believes it has the ability to organize and execute actions that will effect student achievement, the level of rigor in the school increases, thus raising student achievement which in turn, fosters a strong sense of collective efficacy. Figure 6, developed by Hoy and associates (Hoy, Tarter et al., 2006), illustrates the relationship that exists among the three components of academic optimism.

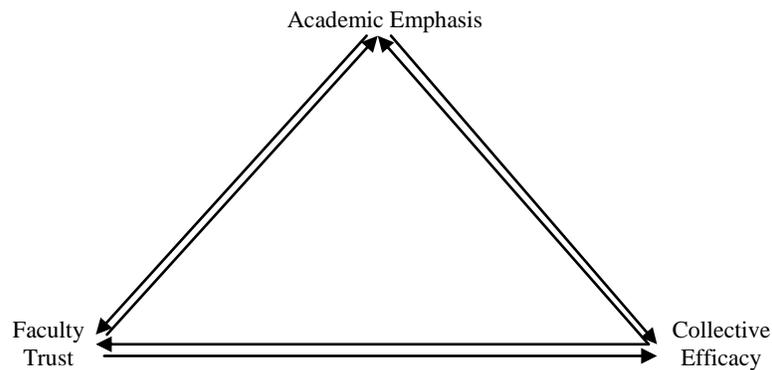


Figure 6. Reciprocal relationships among the Three Components of Academic Optimism (Hoy, Tarter, et al. 2006, p. 432)

Taken together, the three parts combine to form a solid foundation from which academic optimism can flourish. Academic optimism predicts student achievement when controlling for student socioeconomic status in a variety of settings. Hoy's 2006 work was based on research done in high schools, as was the work of Fahy, Wu and Hoy (2010) and Duffy-Friedman (2008). However, the bulk of the research done on academic optimism has focused on elementary schools (Beard, 2008; Beard, Hoy, et al., 2009; Brown, Benkovitz, et al., 2011; Hoy, Hoy, et al., 2007; Kirby, 2010; McGuigan & Hoy, 2006; Smith & Hoy, 2007). Many consider it a vital and important element in fostering school and student success. Forsyth (2008) has described academic optimism studies as the "Holy Grail" for education researchers.

Enabling Structures

Enabling structures facilitate teacher work through policies and procedures set forth in a school (McGuigan & Hoy, 2006). In general, structures can either hamper or encourage school effectiveness (Sinden, Hoy, et al., 2004). Goddard, Salloum and Berebitsky (2009) presented a dismal perspective, stating that formal bureaucratic structures and contracts were unable to regulate the complex realm of teaching and learning. However, many more promising prospects have been identified in the literature. Hoy and Hoy (2009) listed initiating structure as a component of a healthy school. School administrators who were task-oriented and created a structured, achievement-oriented work environment were termed effective leaders.

Adler and Borys (1996) laid a foundation for enabling structures in their description of schools as a type of bureaucracy. In essence, their supposition challenged the conventional wisdom of the time, when most believed that bureaucracy could not be effective and should be avoided (McGuigan & Hoy, 2006). Adler and Borys' seminal work described these structures with a positive connotation on one end of a spectrum as enabling bureaucracies and labeled negative constructs at the other end as coercive bureaucracies. Coercive bureaucracies were punishment-centered and stifled creativity, discouraged staff members and fostered dissatisfaction among the employee ranks. However, enabling bureaucracies focused on technical efficiency and facilitated transparency. Key components of processes that governed staff members were clearly explained to them, and best practices were codified. In short, enabling bureaucracy facilitated innovation (Adler & Borys, 1996).

Sweetland (2001) described enabling structures and procedures as being characterized by two-way communication, the encouragement of differences, an easy adjustment to mistakes, a perspective that problems are opportunities and the promotion of trust. Coercive structures lie at

the other end of the spectrum, symbolized by top-down communication, suspecting differences, penalizing mistakes, viewing problems as limitations and the promotion of mistrust. The coercive system is designed to monitor and control teachers. Therefore, adverse consequences are not necessarily inherent in rules themselves, but rather are due to the decisions that administrators make in establishing rules and procedures (Sweetland, 2001). When enabling procedures are established, the results are interactive dialogue, the willingness to celebrate differences in peers, improved trust and the opportunity to capitalize on and learn from mistakes, and delight in the unexpected; in brief, they facilitate problem solving.

Rationale

While two other studies have researched the connection between enabling structures and academic optimism in elementary school settings (Beard, Hoy, et al., 2010; McGuigan & Hoy, 2006), this inquiry replicates that research and extends it by investigating whether academic optimism serves as a mediator between enabling structures and student achievement. The mediator relationship is unique to the literature involving academic optimism. Development of the hypotheses was grounded in research on mediator variables and informed by the seminal work of Baron and Kenny (1986). A mediator variable is a term that seeks to explain the relationship between the independent and dependent variables. This study identifies academic optimism as a potential intermediary between enabling structures – an independent variable – and student achievement – the dependent variable – a likely assertion, given their established positive connection in the research. Figure 7 illustrates this relationship.

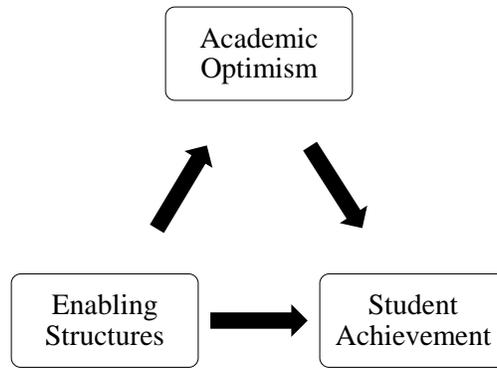


Figure 7. Academic Optimism as a Mediator between Enabling Structures and Student Achievement

Three hypotheses were addressed in this study. Because the prospect of mediation is achieved in a series of steps, the hypotheses were organized accordingly. The first two questions served as precursors to the third question; this order must be followed in order to ascertain whether or not mediation was present for each of the four measures of student achievement.

- H1. To what extent are enabling structures related to student achievement, controlling for socioeconomic status?
- H2. To what extent is academic optimism related to student achievement, controlling for socioeconomic status?
- H3. Does academic optimism mediate the relationship between enabling school structures and student achievement, controlling for socioeconomic status?

Method

Sample and Measures

Requests for participation in this study were distributed at random to 489 of the 1093 elementary schools serving fourth grade students in the state of Alabama. Fourth grade was selected because students at this level have already taken standardized tests; the process is a

familiar one for them. In addition, Bevel's (2010) study of academic optimism used student achievement data from fifth grade students, so fourth grade was selected in order to conduct research with a different student group. Affirmative responses were received from 65 institutions. Questionnaire responses were gathered electronically using an electronic program called *Qualtrics* (www.qualtrics.com).

Two different survey instruments, combined into one document, were used for data collection purposes. Created and validated by experienced researchers whose work is cited in this study, Dr. Wayne Hoy and Dr. Scott Sweetland, each survey has been used extensively. Enabling structures, termed enabling bureaucracy, is measured in one survey, while collective efficacy, trust, and academic emphasis will each be measured in the academic optimism questionnaire.

Enabling structures were measured through the *Enabling School Structures* (ESS) document, developed to assess this construct using a twelve question survey with a five-item Likert scale. Respondents choose between five options: "always", "fairly often", "sometimes", "once in a while" or "never".

In order to gauge levels of academic optimism, which includes the components of collective efficacy, trust, and academic emphasis, the *School Academic Optimism Scale* (SAOS) instrument was used. Of the thirty questions in the SAOS document, the first twelve questions encompass collective efficacy. The next ten questions address faculty trust and the final eight queries, 23–30, concentrate on academic emphasis. All of the academic emphasis questions are worded in a positive manner, while the remainder of the questions on the academic optimism tool has a mix of both positive and negative wording. Likert-type scales are used for SAOS as well, with either six items for collective efficacy and trust ("strongly agree", "agree", "somewhat

agree”, “somewhat disagree”, “disagree” or “strongly disagree”) or four items for academic emphasis (“very often”, “often”, “sometimes”, “rarely”).

Procedures

After receiving IRB approval, the researcher contacted either the superintendent of a district or the principal of an individual school to request their consent to survey the school faculty. Once permission was granted a unique link, generated by the *Qualtrics* program, was emailed to each principal with the expectation that the information would be forwarded to each certified teacher in the school.

Generation of a unique link allowed the researcher to aggregate responses to the school level for analysis. Moreover, using a unique link made it possible to recognize the school from which the survey came without identifying individual teachers, thus ensuring teacher anonymity. Respondents took the survey toward the end of the school year over the course of several weeks, and this process was repeated in the fall of the subsequent school year in order to improve the response rate in previously surveyed schools and increase the overall number of participating schools. Quantitative data were downloaded into a Microsoft Excel file and uploaded into SPSS for analysis.

Addressing the hypotheses required the collection of student achievement data from the state database, which was publicly available. Student achievement was measured by scores obtained on the state’s criterion-referenced test (CRT) in reading and mathematics for fourth grade students, as well as by scores obtained in reading and mathematics on a norm-referenced test (NRT).

Four levels of ability are reported on the criterion-referenced test:

- Level I—Does not meet academic content standards

- Level II—Partially meets academic content standards
- Level III—Meets academic content standards (proficient or grade-level performance)
- Level IV—Exceeds academic content standards

<https://docs.alsde.edu/documents/91/Alabama%20Reading%20and%20Mathematics%20Test.pdf>

f). Although raw scores were distributed to schools, that information was not available for public consumption. Consequently, the researcher measured achievement by adding the percentage of fourth grade students at each school earning Level III and Level IV scores.

As a norm-referenced test, the results fall into a traditional bell curve and scores are reported as percentiles. Performance ranges from the first through the 99th percentile, with the 50th percentile being described as average student performance. Percentiles are divided into nine groups, called stanines, for reporting purposes. The first three stanines (1st through 39th percentiles) were considered low performance, the middle three stanines (40th through 69th percentiles) were viewed as average and the upper three stanines (70th through 99th percentiles) were considered high student performance.

Questions from both the criterion-referenced test and the norm-referenced test were used to determine Adequate Yearly Progress (AYP), so scores from both assessments were utilized in the analysis of student achievement for this study. Because survey distribution occurred in the spring and fall of 2011, standardized test data in both reading and mathematics from the 2010–2011 school year was used.

Limitations

Several factors occurred over the course of the development of this study which are, essentially, limitations. Research was limited to elementary schools in one southern state. The low response rate, perhaps due to electronic data collection methods, resulted in far fewer

participating schools than desired. Perhaps the timing of delivery could have been different in order to garner more responses. Deployment in late fall or early winter might have provided teachers with the time to respond. In addition, a small incentive for participation might have encouraged more educators to comply; nothing was offered in exchange for teachers' responses as per the researcher's IRB.

Analysis

Descriptive statistics provide a snapshot of the schools surveyed and Cronbach's alpha was utilized to ascertain the internal consistency of reliability of scores. All three hypotheses are addressed through correlations and hierarchical multiple regression. The hypotheses are organized into the steps necessary, as outlined by Baron and Kenny (1986), to determine whether academic optimism serves as a mediator between enabling structures and student achievement.

Results

Survey data were collected from 759 teachers in 65 schools. One hundred seventy responses were incomplete and thus unusable, resulting in 589 teacher responses included for analysis at the school level. Of those surveyed schools, 14 were urban (21.5%), 22 suburban (33.8%) and 29 rural (44.7%). Response rates per school ranged from 10.61% to 93.75%, with an overall average of 30.74%. This inquiry focuses on schools serving fourth grade students and 6 schools without grade four were inadvertently surveyed, so 524 responses from the 59 schools were available for analysis. Using this sample, the response rate is calculated as 12.1%.

Assumptions

Assumptions were tested initially, in order to affirm that the data set met the requirements for normality and variance (Ross & Shannon, 2008). Skewness and kurtosis scores supplied

information regarding the organization of the data, while Cronbach's alpha figures ascertained the internal consistency of the reliability of scores. Next, a list of appropriate procedures was developed to address each of the research questions.

Table 8

Descriptive Statistics of the Variables Including Reliability

Variable	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Cronbach's alpha
Enabling Structures	2.61	4.93	4.22	0.39	-1.47	3.53	0.89
Collective Efficacy	3.28	5.50	4.46	0.52	-0.10	-0.35	0.87
Faculty Trust	2.67	5.24	4.42	0.62	-0.24	-0.61	0.94
Academic Emphasis	1.88	3.88	3.15	0.37	-0.81	1.23	0.88
Academic Optimism	2.76	4.90	3.91	0.48	-0.30	-0.19	
Socioeconomic Status	17.3%	97.9%	64.8%	0.25	-0.20	-1.21	
Percent of Teachers Responding per School	8.62%	93.8%	30.6%	0.18	1.67		
Student Achievement						0.37	
CRTR	67.6%	100%	88.2%	0.07	-0.83	1.11	
CRTM	50.0%	96.8%	83.7%	0.10	-1.06	-1.11	
NRTR	36.0%	88.0%	61.8%	0.14	-0.09	-0.68	
NRTM	36.0%	87.0%	65.6%	0.11	-0.27		

Socioeconomic status was defined as the percentage of students receiving free or reduced priced meals. Criterion-referenced (CR) student achievement measures were percentages of students earning a passing or exemplary score. Norm-referenced (NR) tests measured percentage of student responses correct from 1-99 percent.

Each variable (aside from the number of responses) has a negative skewness value, indicating that data points are clustered on the negative side of the distribution. In fact, the skewness statistics for the independent variables of enabling structures and academic emphasis are -1.47 and -0.83, indicating a larger degree of skewness than for collective efficacy (-.10), faculty trust (-.24) and academic optimism (-.30). The skewness values of those three variables are closer to zero, demonstrating a negative distribution that is somewhat closer to normal. A review of the kurtosis statistics reveals a relatively high level for enabling structures, 3.53, suggesting that the data is located closer to the center for that construct. Violations of the assumption of normality did not prevent further analysis.

For each dependent variable (CRTR, CRTM, NRTR, NRTM), the researcher reviewed the associated regression plots and scatter diagrams in order to test assumptions of variance in the data. With regard to three of the dependent variables, no violations of linearity, homoscedasticity or normality were evident. A careful review of the NRTR scatter plot graph indicates a potential issue with heteroscedasticity. However, the violation of this assumption appeared to be minor, so the researcher continued with data analysis.

Descriptive Statistics and Reliability

Reliability statistics were computed on these survey components: enabling structures, collective efficacy, faculty trust and academic emphasis. The independent variables include enabling structures and the components of academic optimism, namely academic emphasis, collective efficacy and faculty trust. Descriptive statistics present an overall picture of the study. Of the variables discussed in this section, enabling structures, academic optimism and its components of collective efficacy, faculty trust and academic emphasis and SES all have a standard deviation less than one, as shown in Table 8. In addition, all constructs were valid

according to computed Cronbach's alpha statistics. The alpha coefficients were high for this sample, ranging from 0.87 for collective efficacy to 0.94 for faculty trust.

Two surveys were combined into a single instrument, comprised of the *ESS* and the *SAOS* which included academic emphasis, faculty trust and collective efficacy. *ESS* scores ranged from 1 (never) to 5 (always). Both collective efficacy and faculty trust scores varied from 1 (strongly disagree) to 6 (strongly agree). Finally academic emphasis scores ranged from 1 (rarely) to 4 (very often). Means were computed for academic emphasis, collective efficacy and faculty trust question sets; reverse scoring was used prior to computation for statements worded negatively ("Students here just aren't motivated to learn." (Hoy, Tarter et al., 2006). A value for academic optimism was computed for each school by averaging the totals for its component values of collective efficacy, faculty trust and academic emphasis. Numbers listed in Table 8 indicates the relative amount of academic emphasis, collective efficacy, faculty trust and academic optimism that could be present in each school.

In order to measure socioeconomic status (SES) in each school, the percent of students receiving free or reduced priced meals was obtained from a public database on the state department of education web site. The SES for schools in this study ranges from 17.3% to 97.9% and the overall average SES of the sample, 64.8%, ranks above the state average of 56%. The computed standard deviation statistic (0.25) indicates that most of the schools' SES level lies near the computed average.

The dependent variable in this inquiry was student achievement. Using the database available from the state department of education, the researcher obtained scores for fourth grade students on both the criterion-referenced tests (CRT) in reading and math and the norm-referenced tests (NRT) in reading and math. CRT scores are reported in terms of the percentage

of students who earned either a passing score (Level III) or a high passing score (Level IV); those scores were combined into a single value. Average scores for surveyed schools, found in Table 13, are relatively high. On the average, for the criterion-referenced test, 88.2% of students in surveyed schools earned a Level III or IV on CRTR and 83.7% of students in surveyed schools earned a Level III or IV on CRTM. Norm-referenced test scores are reported in percentiles for schools in this inquiry. NRTR and NRTM are 61.8% and 65.6% respectively, meaning that students in surveyed schools scored at those respective percentiles on the norm-referenced test in reading and math.

Findings Associated with Enabling Structures, Academic Optimism and Student Achievement

Calculated correlations address the first two hypotheses, and were consistent with researcher expectations. Most relationships are found to be significant with most p values less than .01. Relationships between enabling structures and both norm-referenced tests (NRTR and NRTM) were significant, but for $p < 0.05$. In addition, the relationship between enabling structures and both criterion-referenced tests (CRTR and CRTM) were not significant. Table 9 summarizes the correlations between enabling structures (ESS), academic optimism (AO), its component measures of collective efficacy (CE), faculty trust (FT) and academic emphasis (AE), and student achievement (CRTR, CRTM, NRTR, NRTM).

Table 9

Correlations between Major Variables

Variable	ESS	CE	FT	AE	AO	CRTR	CRTM	NRTR	NRTM
ESS	1	.50**	.42**	.75**	.57**	.15	.14	.26*	.31*
CE		1	.95**	.82**	.98**	.59**	.39**	.70**	.69**
FT			1	.75**	.96**	.56**	.35**	.69**	.65**
AE				1	.89**	.51**	.45**	.60**	.65**
AO					1	.60**	.43**	.72**	.72**
SES	-.07	-.72**	-.75**	-.40**	-.68**	-.52**	-.35**	-.72	-.65**

** $p < 0.01$, * $p < 0.05$

H1: To what extent are enabling structures related to student achievement, controlling for socioeconomic status? Enabling school structures (ESS) did not correlate significantly with either criterion-referenced test in reading ($r = .15$, p not less than .05) or mathematics ($r = .14$, p not less than .05), because the correlations did not reach an established level of significance (p values equal 0.22 and 0.30 for CRTR and CRTM respectively). An established level of significance, as noted by the correlations, was found for both enabling structures and the norm-referenced tests in reading ($r = .26$, $p < .05$) and mathematics ($r = .31$, $p < .05$). Therefore, significant and positive relationships existed solely between enabling structures and the norm-referenced measures of student achievement (NRTR, NRTM).

Tables 8 and 9 provide more information; hierarchical regression models for the criterion-referenced and the norm-referenced variables are presented. Hierarchical regression was utilized in order to ascertain the extent to which the independent variables, enabling structures and academic optimism, predicted student achievement, as operationalized by the

dependent variables of the criterion-referenced and norm-referenced measures in reading and math when controlling for SES. Each hierarchical regression was performed in the same manner; SES was entered in the first step, followed by enabling structures and academic optimism in the subsequent second and third steps. Controlling for SES enabled the researcher to ascertain the influence of the remaining independent variables (enabling structures and academic optimism) on student achievement. Each of the four models representing criterion-referenced tests in reading (CRTR) and math (CRTM) and norm-referenced tests in reading (NRTR) and math (NRTM) was analyzed in turn.

A review of the regression models provided information about the unique contribution of enabling structures when controlling for SES. The regression models appeared to support data from the bivariate correlations that enabling structures had a significant relationship with both of the norm-referenced tests and with neither of the criterion-referenced tests. R^2 Change values for CRTR, CRTM, NRTR and NRTM were 0.01, 0.01, 0.04 and 0.07 respectively, indicating that enabling structures accounted for 7% or less of the variance for each model. Moreover, p values associated with F-change statistics (CRTR: F-change = 1.02, $p = 0.32$; CRTM: F-change = 0.85, $p = 0.36$; NRTR: F-change = 5.50, $p = 0.02$; NRTM F-change = 7.87, $p = 0.01$) revealed levels of significance with NRTR and NRTM according to Table 9; conversely, p values for CRTR and CRTM were greater than 0.05 respectively as seen in Table 8.

Table 8

Hierarchical Regressions of SES, ESS and AO on CRTR and CRTM

	Dependent Variables							
	CRTR				CRTM			
	R ² Chng	F-Value	β	sp ²	R ² Chng	F-Value	β	sp ²
Step 1								
SES	0.28**	21.63**	-0.52		0.12**	7.95**	-0.35	
Step 2								
SES			-0.52				-0.34	
ESS			0.11				0.12	
R ² Change	0.01**	11.33**			0.01*	4.39*		
Step 3								
SES			-0.07				-0.02	
ESS			-0.25				-0.14	
AO			0.70				0.49	
R ² Change	0.13	13.10**			0.06	4.58**		
R ² Tot. (adj)	0.42				0.19			

** $p < 0.01$; * $p < 0.05$

Table 9

Hierarchical Regressions of SES, ESS and AO on NRTR, NRTM

	Dependent Measures							
	NRTR				NRTM			
	R ² Chng	F-Value	β	sp ²	R ² Chng	F-Value	β	sp ²
Step 1								
SES	0.52**	62.71**	-0.72		0.42**	41.41**	-0.65	
Step 2								
SES			-0.71				-0.63	
ESS			0.21				0.27	
R ² Change	0.04**	36.58**			0.07**	27.14**		
Step 3								
SES			-0.42				-0.30	
ESS			-0.03				0.00	
AO			0.45				0.51	
R ² Change	0.05**	29.91**			0.07**	23.45**		
R ² Tot. (adj)	0.61				0.56			

** $p < 0.01$; * $p < 0.05$

H2: To what extent is academic optimism related to student achievement, controlling for socioeconomic status? Collective efficacy significantly correlated with the criterion-referenced tests in reading and mathematics (CRTR and CRTM) respectively ($r = .59, .39, p < .01$), as well as with faculty trust ($r = .56, .35, p < .01$), academic emphasis ($r = .60, .65, p < .01$) and academic optimism ($r = .60, .43, p < .01$). The norm-referenced tests in reading and mathematics also indicated a significant relationship with collective efficacy ($r = .70, .69, p < .01$), faculty trust ($r = .69, .65, p < .01$), academic emphasis ($r = .70, .69, p < .01$) and academic optimism ($r = .72, .72, p < .01$) respectively. Correlations indicated a significant relationship between academic optimism and all four achievement measures, including criterion-referenced (CRTR and CRTM) and norm-referenced (NRTR and NRTM) tests at $p < 0.01$.

Four regression models provided information regarding the unique contribution of academic optimism when controlling for SES; data from the bivariate correlations indicated a significant relationship with all four measures of student achievement. R^2 Change values for CRTR, CRTM, NRTR and NRTM were 0.13, 0.06, 0.05 and 0.07 respectively, indicating that academic optimism accounted for more variance for each model, overall, than enabling structures. p values corresponding to F-change statistics (CRTR: F-change = 12.14, $p = 0.001$; CRTM: F-change = 4.42, $p = 0.04$; NRTR: F-change = 7.75, $p = 0.007$; NRTM F-change = 8.66, $p = 0.005$) further supported a significant relationship between academic optimism and all four measures: CRTR, CRTM, NRTR and NRTM.

H3: Does academic optimism mediate the relationship between enabling school structures and student achievement, controlling for socioeconomic status? In order to address this question, each of the requirements for mediation must have been met; a test that established full mediation for the independent variable of academic optimism had four steps (Baron &

Kenny, 1986; Kenny, 2008, 2011). Figure 8 illustrates these steps as they apply to the variables in this study: the two independent variables (enabling structures and academic optimism) and the four dependent variables (student achievement).

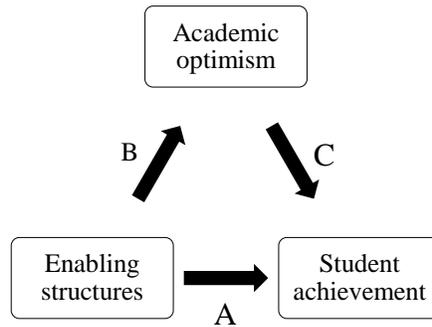


Figure 8. Academic Optimism as a Mediator between Enabling Structures and Student Achievement

Academic optimism serves as the potential mediator variable. First of all, in order to confirm the mediating relationship, enabling structures must have correlated with student achievement (A). Secondly, enabling structures must have correlated with academic optimism (B). Next, academic optimism should have demonstrated predictive power with respect to student achievement (C). Finally, in order to establish full mediation, the overall effect of enabling structures on student achievement should have been reduced in the model in the presence of academic optimism. Only partial mediation is possible, according to Kenny (2011), if the first three steps in the mediation process were met, meaning that the net effect of enabling structures on student achievement was not zero.

Since enabling structures was not significantly related to either of the criterion-referenced tests, mediation was explored solely with the norm-referenced measures of student achievement.

To test for mediation, the hierarchical regression was analyzed separately for each of the remaining dependent variables (NRTR and NRTM), as indicated in Table 9.

The possibility of the existence of mediation began with an exploration of the relationship between enabling structures and the norm-referenced test in reading (NRTR). The first test of mediation was met because a significant correlation with enabling structures was evident (.26, $p < .05$). The second test for mediation was also met because of the positive significant relationship between enabling structures and academic optimism (.57, $p < .01$). Academic optimism predicted student achievement in the third step, as affirmed by Table 9, where the standardized Beta weight for academic optimism (.45) was greater than that of enabling structures (-.03) and SES (-.42). However, when controlled for academic optimism, the overall influence of enabling structures was negative, indicating the strength of the relationship of academic optimism on the model. Moreover, Table 9 indicates that the standardized Beta weight for enabling structures in the second step of the hierarchical regression model was reduced from 0.21 to -0.03 with the addition of academic optimism. Therefore, academic optimism did function as a mediator between enabling structures and the norm-referenced test of student achievement in reading (NRTR).

The norm-referenced test in math (NRTM) was the basis of the next set of mediation tests; these tests were also based on information found in Table 9. The first test for mediation was met – enabling structures and NRTM correlated at a significant level (.31, $p < .05$). The second test for mediation was also achieved because of the positive significant correlation between enabling structures and academic optimism (.57, $p < .01$). Academic optimism predicted NRTM in the third step of the process, as affirmed by Table 9, where the standardized Beta weight for academic optimism (.51) was greater than that of enabling structures (.00) and

SES (-.30). The standardized Beta weight for enabling structures was reduced in this model from 0.27 to zero; each data point was rounded to the hundredth decimal place. Although it may appear that the standardized beta coefficient for enabling structures was zero in the presence of academic optimism, it was actually .002. Nearly full mediation was present in this case, since enabling structures seemed to have no relationship with NRTM after controlling for academic optimism in the fourth. Academic optimism served as a partial mediator between enabling structures and the norm-referenced test of student achievement in mathematics (NRTM).

Discussion and Implications for Future Study

The purpose of this study was to examine relationships between enabling structures, academic optimism and student achievement. The study sought to determine the degree to which these elements were related to student achievement on two types of tests. Specifically, addressed the issue of mediation, seeking to ascertain whether academic optimism mediates the relationship between enabling structures and student achievement. The hypotheses were addressed by analyzing correlations and regressions, resulting in the confirmation of all three hypotheses in the affirmative.

Correlations pointed toward a significant relationship between enabling structures and the norm-referenced tests in both reading and math. However, the relationship between enabling structures and criterion-referenced tests in both reading and math was not significant – even though the correlation was positive. It seems that the nature of the standardized assessment lends itself to a connection with enabling structures; perhaps assessments that are normed with large populations of students over time are better predicted by enabling structures than criterion-referenced tests.

The findings also confirmed that academic optimism mediated the relationship between enabling structures and the norm-referenced measures of student achievement. However, mediation did not occur with the criterion-referenced measures of student achievement. A review of public records (http://nces.ed.gov/programs/digest/2010menu_tables.asp) revealed that criterion-referenced test data were used McGuigan & Hoy's (2006) study. It is possible that mediation was not used by McGuigan & Hoy because, like the findings in this study, the first step of mediation was not met; enabling structures may not have had a significant correlation with criterion-referenced tests.

Given these results, namely that enabling structures correlated significantly with norm-referenced tests but not with criterion-referenced tests, it seems prudent to discuss the differences in the types of student achievement measures. Norm-referenced tests compare one student's performance to the performance of a representative group of students. Criterion-referenced tests delineate individual student achievement with regard to an established set of skills or to a knowledge band. Moreover lower established cut scores, set by the state department of education, provide an unrealistic portrait of achievement; a passing score for the criterion-referenced tests is equivalent to getting approximately 40% of the questions correct (www.alsde.edu). Such a benchmark falls well below a passing grade in nearly every elementary school, where students pass with at least 60% of answers correct. Conversely, student scores on norm-referenced tests are compared to the results of other students of the same age across the country.

All four measures of student achievement, both criterion-referenced and norm-referenced (CRTR, CRTM, NRTR, NRTM), had a significant relationship with academic optimism. This confirms previous research done involving academic optimism and academic achievement

(Fahy, Wu, et al., 2010; Hoy, Hoy, et al., 2007; Hoy, Tarter, et al., 2006; McGuigan & Hoy, 2006; Smith, 2009; Smith & Hoy, 2007).

Enabling structures correlated with the component parts of academic optimism, with values of 0.50 for collective efficacy and 0.42 for faculty trust. Moreover, a larger correlation, 0.75, is calculated for academic emphasis. Smith (2001) highlighted a potential connection with the various components of academic optimism, which included academic emphasis as a dimension of school health. Other studies (Bower & Powers, 2010; Goddard, Sweetland, et al., 2000; Murphy, Weil, et al., 1982; Shouse, 1999), including McGuigan and Hoy (2006), directed attention to established, even conventional, school structures that enabled academic emphasis to thrive, such as adopting high, external standards; developing school policies that push students to excel and encouraging students to take rigorous courses (McGuigan & Hoy, 2006). It seems that a relationship exists between enabling structures and academic emphasis, which is codified by this study, which occurred with a population which differed from those in most of the other studies, since it was conducted in a southern state.

Future Study

Based on the findings, implications for future study abound. Leadership preparation programs should include a treatise on the relationship between enabling structures and academic optimism, especially because of the positive connection with student achievement. School administrators, upon learning more about the tenets of academic optimism, could survey their schools for the three components of academic emphasis, collective efficacy and faculty trust and amend school improvement plans based on the outcome. Moreover, district administrators could apply this knowledge in the application of professional development opportunities for principals and their assistants.

All of the participating schools are located in the southern United States; perhaps other settings or locations would be fertile ground for future study. It would be interesting to note if the constructs held in New England states, far Western states and in other parts of the world. Rhoads (2009) has studied enabling structures and efficacy in Mexican schools, while Mascall and colleagues have already surveyed Canadian teachers about academic optimism (2008). Other researchers have investigated the potential of academic optimism in secondary schools (Fahy, Wu, et al., 2010; Hoy, Tarter, et al., 2006; Kirby & DiPaola, 2009), and further work could be done with these same schools by adding enabling structures as another independent variable.

In addition, a qualitative study of schools with high levels of enabling structures and academic optimism in place would yield valuable information, similar to the second phase of Brown's inquiry (2011). Such an investigation could validate previous studies regarding administrator influence (McGuigan & Hoy, 2006) and support quantitative research with rich, thick descriptions of highly functional schools in terms of what they value and how they operate.

Conclusion

This inquiry follows up on previous work done by McGuigan (2006) and Beard (2010), with a few differences. First of all, this study compared the effects of enabling structures and academic optimism to four different types of academic achievement measures, both criterion-referenced and norm-referenced. Bevel (2010) chose to utilize solely the criterion-referenced test for reading in the state to assess student achievement. McGuigan and Hoy (2006) used the criterion-referenced tests in reading and math for their measures of academic achievement, while Beard and Hoy's study (2010) did not address student achievement, and thus did not use

standardized tests. Secondly, hypotheses are based on the premise of a mediator variable, which is new to the literature.

This inquiry serves as the third study incorporating enabling structures and academic optimism, and the first that utilizes mediation. Results contained herein hold promise for future study in this area. It seems that structures do exist that facilitate student achievement, and administrators should be encouraged to find the strategies that best suit their school and implement them to foster efficacious teacher behavior and facilitate student achievement.

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CHAPTER 6. MANUSCRIPT 2: TEACHERS' PERSPECTIVES OF THE ROLE OF ENABLING STRUCTURES AND ACADEMIC OPTIMISM IN FOSTERING THEIR SUCCESS

Student achievement issues abound in this era of accountability and school stakeholders continue to look for factors that will create, nurture and sustain academic progress. Research has documented the powerful impact that school can have upon student success (Lindhal, 2006). A number of elements contribute to a positive school climate. Two of the most important are enabling structures (Hoy & Sweetland, 2001; Jacobson, Johnson, Ylimaki, & Giles, 2005; Sinden, Hoy, & Sweetland, 2004) and academic optimism (Beard, Hoy, & Hoy, 2010; Hoy, Tarter, et al., 2006; McGuigan & Hoy, 2006). This study sought to examine the extent to which these constructs were perceived as important from the perspective of the teachers.

Conceptual Framework

Enabling structures are described in the literature as the combination of enabling formalization structures, which codify flexible rules that help teachers solve problems, and enabling centralization structures, which empower teachers to confidently make decisions (Hoy & Sweetland, 2001; Sinden, Hoy, & Sweetland, 2004; Sweetland, 2001; Sweetland & Hoy, 2000). Academic optimism is the shared belief among stakeholders that students will achieve academic success (McGuigan & Hoy, 2006). Previous studies have found a significant

relationship between these two constructs. These constructs are described in greater detail in the sections that follow.

Enabling Structures

Enabling structures facilitate teacher work through policies and procedures set forth in a school (McGuigan & Hoy 2006). In general, structures can either hamper or encourage school effectiveness (Sinden, Hoy, et al., 2004) and have been significantly related to student achievement (Hoy & Sweetland, 2001; Sinden, Hoy, & Sweetland, 2004; Sweetland, 2001; Sweetland & Hoy, 2000).

Adler and Borys (1996) laid a foundation for enabling structures in their description of schools as a type of bureaucracy. In essence, their assertion was a novel one, because most believed at the time that bureaucracy was ineffective and should be avoided. The authors (1996) posited that these structures served as a continuum, with enabling structures on one end and hindering structures on the other. Hindering structures, also termed coercive bureaucracies, are punishment-centered, resulting in minimal flexibility and increased dissatisfaction among employee ranks. Individual autonomy is reduced, compliance is forced and rules legitimize one party's right to discipline another in times of conflict.

Unlike hindering structures, enabling processes focus on technical efficiency and facilitate transparency. Key components of governing structures are clearly explained to staff members, best practices are codified and feedback on employee performance is regularly measured. Enabling structures are built upon the premise that rules and regulations are likely to facilitate organizational functioning only when the requirements of a task are understood well enough to be clearly and concisely explained (Tschannen-Moran, 2000). Examining these processes, Hoy and Hoy (2009) list enabling structures as a component of a healthy school.

School administrators who are task-oriented and create an orderly, achievement-oriented work environment are described as effective leaders.

Sweetland (2001) describes enabling structures and procedures as being characterized by two-way communication; the celebration of differences; an easy adjustment to mistakes; a perspective that problems are opportunities and the promotion of trust. Conversely, he notes that coercive structures are symbolized by top-down communication; suspecting differences; penalizing mistakes; viewing problems as limitations and the promotion of mistrust. McGuigan and Hoy (2006) established a relationship between enabling structures, defined as procedures which facilitated teacher work in schools, and academic optimism.

Academic Optimism

Academic optimism was developed as a result of previous research performed on climate, efficacy and school structures. Hoy and colleagues (2006) amalgamated their experiences and coined this new term. The authors defined academic optimism as the confidence among all school stakeholders that students will achieve academic success (McGuigan & Hoy, 2006). Hoy, Hoy and Kurz (2007) went on to describe academically optimistic teachers as those who are committed, resilient and conscientious in the seemingly relentless pursuit of academic achievement. Research indicates excellent potential for positively correlating to student achievement to academic optimism (McGuigan & Hoy, 2006).

Three elements comprise the academic optimism construct, developed from cognitive, affective and behavioral components (Hoy, Tarter, et al., 2006): collective efficacy, faculty trust in students and parents and academic emphasis. Collective efficacy, the cognitive component, is a group thought process. Faculty trust in parents and students is an affective characteristic, and academic emphasis is an expectation of particular behaviors in the school. Knowledge of these

composite elements of collective academic optimism has the added benefit of providing a wider set of possibilities for improving optimism in schools (Hoy, Tarter et al., 2006).

Enabling Structures and Academic Optimism

In this study, the association between enabling structures and academic emphasis, collective efficacy and faculty trust, collectively known as academic optimism, was conceived to be seamless (Beard, Hoy et al., 2010; McGuigan & Hoy, 2006). Therefore, the existence of enabling structures seems to be inextricably connected to the presence of academic optimism as seen in Figure 9; structures termed as enabling seemed to be inherently optimistic.

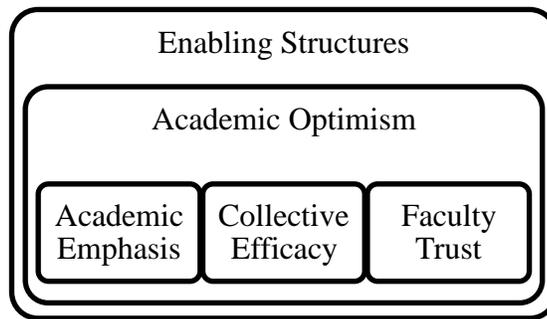


Figure 9. Relationship between Enabling Structures and Academic Optimism

Purpose and Significance of the Study

This inquiry was part of a larger study that addressed enabling structures, academic optimism and student achievement. Like previous analyses (McGuigan & Hoy, 2006), the first part of the study used quantitative methods as the mode of analysis.

This part of the investigation compliments the first study by providing a qualitative perspective from the view of the teachers in the schools. The purpose of this study was to discover teacher perceptions of the relationship of their success to enabling structures and academic optimism.

Significance of the Study

Several inquiries have addressed academic optimism (Beard, Hoy, et al., 2010; Bevel, 2010; Brown, Benkovitz, et al., 2011; Fahy, Wu, et al., 2010; Hoy, Hoy, et al., 2007; Hoy, Tarter, et al., 2006; Kirby, 2010; Mascall, Leithwood, Straus, & Sacks, 2008; McGuigan & Hoy, 2006; Smith & Hoy, 2007), but only two have researched the connection between enabling structures and academic optimism (Beard, Hoy, et al., 2010; McGuigan & Hoy, 2006). Both of these studies used quantitative methods of analysis. Furthermore, most of the researchers who reviewed these cultural elements have suggested that a qualitative inquiry would add a fresh outlook to the body of literature. This inquiry appears to be the first study to use qualitative methods to examine teachers' perspectives of enabling structures and academic optimism. The results of this study will aid in our understanding of the importance of these constructs as viewed by the teachers, and should help to further examine the relationship between these elements of school climate and student success.

Methodology

This section of the study provides a framework for examining the data. Included are the research questions, methods of data collection and modes of analysis.

Research Questions

Three research questions were addressed: (1) What policies and procedures in the structures and operations of the school do teachers perceive as facilitating their success; (2) What elements of academic optimism – academic emphasis, collective efficacy and faculty trust – do teachers perceive as facilitating their success; and (3) To what extent are there differences in teachers' perceptions of the presence of enabling structures in higher and lower performing schools?

Data Collection

Two different survey instruments assessing enabling structures and academic optimism, combined into one document, were used to collect data for the first part of the study. Surveys in this document, created and validated by experienced researchers Dr. Wayne Hoy and Dr. Scott Sweetland, were comprised of multiple choice questions and have been utilized extensively (Hoy & Sweetland, 2001; Hoy, Tarter et al., 2006). An open-ended question (“What policies or procedures help you do to your job better?”) was added to the instrument in order to gather qualitative data for this study.

After receiving IRB approval, requests for participation in this study were distributed at random to 489 of the 1093 elementary schools serving fourth grade students in the state of Alabama. Grade 4 was selected because these students have taken standardized tests in the past and these data were used to conduct the analysis. A previous study performed in the same state (Bevel, 2010) reviewed fifth grade achievement data, so fourth grade was selected in order to conduct research with a different student group. The researcher contacted either the district or school administrator to request permission to survey the school faculty. Upon receipt of authorization to deploy the survey a unique link, generated by the *Qualtrics* program, was emailed to each principal along with a request to forward that link to every certified teacher in the school. Teachers took the survey in late spring of 2011 over the course of several weeks; this process was repeated in the fall of the 2011 in order to improve the response rate and to increase the overall number of participating schools. Sixty-five institutions agreed to participate in the research study, resulting in an overall response rate of 13.3%.

Research questions required the collection of student achievement data. The state department of education in Alabama housed such information in an online database. Student

achievement was defined for fourth graders using multiple measures: scores on the state's criterion-referenced test in reading and mathematics (CRTR and CRTM), and scores on a national norm-referenced test in reading and mathematics (NRTR and NRTM). However, results from the first part of this study suggested that the norm-referenced tests correlated significantly with enabling structures and student achievement, so the researcher decided to use the norm-referenced tests (NRTR and NRTM) exclusively instead of all four measures when analyzing data for this study. As a norm-referenced test, the results fell into a traditional bell curve and scores were reported as percentiles. Performance varied from the first through the 99th percentile, with the 50th percentile being described as average student performance.

Data Analysis

Of the 589 responses to the survey, 352 included replies to the open-ended question; answering the open-ended question was optional. Each school was assigned a number, and responses were downloaded from SPSS into a Microsoft Excel database. Each cell represented an individual teacher response from a unique school. Codes were assigned to each response according to Bogdan and Biklen's work (2007), and content analysis was conducted on the responses (Anfara, Brown, & Mangione, 2002; Patton 1990). Initially, responses were organized into the two categories which described the constructs under study: enabling structures and academic optimism (the three components of academic emphasis, collective efficacy and faculty trust were deemed subcategories of academic optimism). Then these data were analyzed for patterns, and coded to represent topics. These topics developed into overarching categories, thus providing a framework to organize individual responses. Additionally, groups were color-coded in order to further reflect patterns and trends. Responses which did not fit into these categories were placed into their own thematic areas.

In order to address the third research question dealing with student achievement, all schools were assigned a code according to their academic performance on the norm-referenced measures in reading and mathematics (NRTR, NRTM). Seven of the 65 schools were coded as lower performing schools (LPS), seven different schools were assigned as higher performing schools (HPS) and the remaining 51 were listed as performing schools (PS). Each response was assigned a unique identifier for easy reference. For example, entry HPS129-6 is the sixth response from the higher performing school numbered 129.

Findings

Respondents represented 43 out of 132 districts in the state. Of these, 14 were urban (21.5%), 22 suburban (33.8%) and 29 rural (44.7%). Five hundred eighty-nine complete teacher responses were available for analysis from those 65 schools. A description of the demographics of these schools is presented in Table 12.

Table 12

SES and Student Achievement of Participating Schools

Variable	Minimum	Maximum	Mean	Standard Deviation
Socioeconomic Status of Schools	17.3%	97.9%	65.2%	0.26
Student Achievement				
NRTR	37.0%	88.0%	61.4%	0.14
NRTM	47.0%	87.0%	65.6%	0.11

The average socioeconomic status (SES), defined as the percentage of students in the school receiving free or reduced priced meals, was 65.2%. Student achievement, measured by

performance on norm-referenced tests in reading (NRTR) and mathematics (NRTM), averaged at 61.4% and 65.6% respectively.

Teacher Perspectives

Three hundred fifty-two out of 589 (59.8%) chose to respond to the open-ended question and, of that number, 299 gave a single answer and 53 teachers provided two or more different responses to the question. The multiple response entries were separated, reviewed and categorized, resulting in 118 distinct responses from those 53 teachers. Overall, 417 individual responses were available for analysis from the sample group of 352 teachers. Of the total number of statements, 21 teachers (5.0%) responded “none” to the open-ended question (“What policies or procedures help you do to your job better?”). Two statements were made by HPS teachers, 3 by LPS teachers and the remaining 16 statements were provided by PS teachers.

As previously noted, data were organized according to the two constructs under review in this study: enabling structures and academic optimism (along with subcategories of academic emphasis, collective efficacy and faculty trust). However, a third category, Proactive Administrator Action, emerged from these data. Findings related to these three areas and the outcomes regarding the relationship of enabling structures, academic optimism and student achievement have been presented in the sections which follow.

Enabling Structures

The first research question directly addressed enabling structures: *What policies and procedures in the structures and operations of the school appear to facilitate teacher success and serve as enabling structures?* Two hundred twenty-two of the 417 responses (53.2%) delineated specific structures that were implemented in their school at the time of the survey. Most of those responses fell into the subcategories of time, effective scheduling and consistent

implementation of discipline plans. Other responses referenced their school's teacher observation process, specific curricular structures (such as the Alabama Math Science and Technology Initiative and the Alabama Reading Initiative), instructional strategies (such as the cycle of instruction and formative assessment) and implementation of the school's continuous improvement plan.

Time seemed to be a valuable commodity to teachers. Instructional time appeared to be precious, because teachers appreciated structures that limited classroom disruptions, whether from the office ("fewer intercom interruptions", PS310-3) or from parents ("Parents not being allowed to roam the building...", PS225-7). Teachers seemed to routinely meet about student progress, and were grateful to have had the time to review student progress with their peers in order to modify instruction. In fact, collaborative planning was mentioned on several occasions: "Time is set aside weekly to plan for students with team members and weekly faculty meetings to learn new ideas" (LPS28-6).

A subcategory of enabling structures, closely related to the category of time, was the thoughtful, deliberate use of a schedule to organize the school day. Thirty-eight teachers referenced effective scheduling procedures: "My school administrator has implemented an overall master schedule for our grade level, which helps everyone stay on the same pace. It also utilizes our time with the students very well." (PS179-5) Teachers appreciated proactive scheduling, whether initiated by their administrator or by other teachers. It appeared that they viewed the outcome of this scheduling to be an overall improvement in teaching and learning. Teachers also seemed to value specific, protected blocks of time woven into the master schedule to teach certain subjects ("90 minutes of uninterrupted reading block", HPS339-2) or to intervene

with struggling students (“We have a time built into our schedule that allows teachers extra time with students who are struggling.” PS356-6).

Also emerging from the data set as a subcategory of enabling structures was having an organized, school-wide plan for addressing disciplinary issues. Teachers seemed to welcome this structure, and it appeared to facilitate effective instruction. Forty-nine statements referenced school behavior plans or procedures to reward good behavior. Positive Behavior Supports (PBS), a disciplinary system designed to proactively teach and reward positive behavior instead of emphasizing negative behavior, was mentioned by name in 6 of the 49 replies regarding discipline procedures. One teacher explained the relationship between such a system and time management: “The positive behavior support plan helps manage student behavior so class time can be used effectively.” (PS201-16)

Academic Optimism

Academic optimism was the focus of the second question: “*What elements of academic optimism – academic emphasis, collective efficacy and faculty trust – appear to help teachers do their jobs better?*” While all elements were found in the data set, academic emphasis was reported most often as operationalized by high expectations. As the most widely reported component of academic optimism, 34 statements reflected high expectations (“To be held accountable for everything my students do.” PS1716-2). Teachers conveyed the importance of being held accountable by their administrators (“Closely monitor lesson plans and progress” LPS134-2), and seemed to value the existence of clear guidelines for behavior, instruction and performance: “Our principal is in and out of our rooms, so the visible presence of administration supports us as teachers and helps us to be held accountable” (PS306-5).

Expectations went beyond fair treatment (“Our principal treats everyone fairly.” LPS142-4). Teachers understood that their administrators insisted on proper implementation of certain curricular frameworks (“Alabama Reading Initiative” PS178-2) or instructional methods (“Emphasis on differentiated learning” PS232-5). In addition, behavioral expectations (“Be responsible, be resourceful, be respectful” PS232-2) were also reported.

Also found in the data set were statements that seemed to demonstrate academic optimism. This construct was inherent in replies which described the atmosphere of the school; six statements regarding the school environment were submitted.

Our school administrator believes in a collaborative environment that values open discussion between teachers to solve problems. She believes in involving all stakeholders and giving them a voice. This creates an environment where teachers feel valued and enjoy working together. (PS225-3)

Three statements directly referred to a positive atmosphere, but one statement seemed to encapsulate the nature of this construct: “Our principal has been able to create a “family” in my school, allowing teachers to work collaboratively more often. While this is not a “policy” it is essential.” (PS311-5). Teachers acknowledged and seemed to genuinely appreciate the establishment of a positive work environment.

The remaining elements of academic optimism were clearly present upon review of teacher responses; despite the fact that collective efficacy and trust were the least often reported elements in the data set. Collective efficacy was most frequently demonstrated through procedures or philosophies that empowered teachers, such as the ability to develop the master schedule or the assignment to a leadership team that revised the school’s improvement plan.

“I’m not sure about specific policies and procedures, but I do think that the fact that our administration puts a lot of stock in individual teachers’ “teacher judgment’ helps all of us to be more productive and feel more accomplished and successful here at our school.” (PS299-7)

Working on leadership teams also facilitated teacher efficacy. One response aptly communicated the spirit of collective efficacy: “We are all in this together. Everyone helps. It is not all on the classroom teacher’s back.” (PS225-10). Similarly, trust was either overtly stated in these data (“The administration trusts and supports teacher judgment in meeting the COS in a variety of ways to meet student needs.” PS356-3) or implied through expression of the freedom to innovate and develop effective instructional strategies that could positively impact student achievement (“By letting me use my style of teaching to reach each child.” HPS221-3). A trusting relationship between teacher and administrator is inherent in this statement: “Our principal simply lets us do our job with micromanaging or questioning our teaching styles.” (PS360-8).

Enabling Structures, Academic Optimism, and Student Achievement

The relationship between student achievement, enabling structures and academic optimism was examined in the final research question: *“To what extent do differences in teacher perception of enabling structures exist between higher and lower performing schools?”* To begin, a summary of the schools identified as higher performing (HPS) and lower performing (LPS) has been presented in Tables 13 and 14.

Table 13

Demographic Data for HPS Schools

Schools	SES	NRTR	NRTM
HPS			
129	95.6%	88.0%	84.0%
221	24.7%	82.0%	77.0%
245	25.8%	85.0%	87.0%
267	17.6%	80.0%	75.0%
339	35.2%	79.0%	81.0%
415	60.5%	76.0%	80.0%
1035	17.3%	82.0%	81.0%
Minimum	17.3%	76.0%	75.0%
Maximum	95.6%	88.0%	87.0%
Average	39.5%	81.7%	80.7%
Standard deviation	0.29	0.04	0.04

The standard deviation of the HPS schools illustrates the range of SES for these schools. In addition the average SES for HPS schools, 39.5%, was significantly lower than the average of the total data set, 65.2%. The standard deviation for the norm-referenced tests in reading and math was expectedly small, since all of the schools in this group achieved at a relatively high level.

Table 14

Demographic Data for LPS Schools

Schools	SES	SAT-10 Reading	SAT-10 Math
LPS			
28	63.2%	37.0%	50.0%
38	53.7%	40.0%	49.0%
100	89.3%	41.0%	49.0%
134	94.1%	47.0%	49.0%
142	92.3%	46.0%	49.0%
202	96.5%	37.0%	47.0%
1299	94.2%	41.0%	51.0%
Minimum	53.7%	37.0%	47.0%
Maximum	96.5%	47.0%	50.0%
Average	83.3%	41.3%	49.1%
Standard deviation	0.17	0.04	0.01

The standard deviation for the LPS schools was smaller than that of the HPS schools, but remains comparatively large; SES was not clustered very tightly together for this group of schools. However, the average SES for these schools, 83.3%, was significantly higher than the average of the total set of schools. As for HPS schools, the standard deviation for both standardized tests was small, because all schools achieved on the lower end of the scale.

When data were clustered according to achievement, patterns emerged. A thorough review of the responses revealed these patterns between the higher performing schools (HPS) and the lower performing schools (LPS); there were 7 schools in each group. First of all, HPS

teachers responded in greater numbers (38) than LPS teachers (32). Only one negative statement was collected from the HPS schools versus 4 negative statements from LPS schools; two statements were from the same school. HPS respondents recorded nearly twice as many trust statements (7) as LPS teachers (4). Enabling structures statements were plentiful in both settings and expectations seemed to be high for both HPS and LPS schools as noted by teacher responses.

In addition:

- More statements regarding effective communication were reported by HPS teachers
- Fewer statements regarding trust and efficacy were made by LPS teachers
- About the same number of statements regarding expectations and school policies were documented by both HPS and LPS schools

Additional Findings

Several statements did not belong in either the enabling structures or academic optimism categories and were separated into another thematic area, termed Proactive Administrator Action. Some teachers directly referenced the behavior of their principals, seeming to appreciate their model example (“She works hard daily and assists whenever it is needed.” PS 178-6). Being a proactive administrator seemed to result in satisfied teachers because their needs were anticipated and met (“My school administrators search for ways to help teachers in any area, from meeting technology needs to implementing restroom procedures.” PS64-4).

In addition, this area covered the subcategories of professional development, relationships with parents and communication (“Administrators in this school share vital information, data and rules with teachers.” PS79-4). It seemed that both verbal and nonverbal forms of communication were valued by teachers. A few statements discussed communication systems in the school, such as “an instant message system, to cut down on intercom interruptions

during class time” (HPS339-4). The importance of listening to teacher concerns was also expressed (“He listens and takes into consideration what teachers say and how they feel.” PS179-3)

Furthermore, teachers seemed to appreciate the apparent accessibility of their administrators in order to share their ideas (“She has an open door policy; therefore, I can approach her about anything and she will consider my requests/suggestions.” PS1852-2). Communication with parents was also noted; one statement referenced a blog specifically designed for parents to share information with the school. Comments regarding positive phone calls and conferences with parents and working with parents to solve problems were recorded. Only one communication statement was made by an LPS teacher, and no comments by LPS teachers were made about parents at all.

The other subcategory of proactive administrator action was professional development, which surfaced in 24 responses. “Professional Learning sessions on various topics of interests were planned during the year to keep us abreast of innovative issues in education.” (PS141-9) Faculty/grade level meetings were often the source of professional learning (“The school has implemented workdays for teachers to be able to plan better for subject matter material to help ensure better learning for the students.” PS1887-2). One teacher stated that professional development occurred, but the principal chose the topics. Others cited professional development in particular programs, such as *the Seven Habits of Highly Effective People* as being noteworthy. Four teachers mentioned mentoring programs as being helpful, and four responses listed technology workshops as being effective. Moreover, book studies on topics such as classroom management and strategic teaching were also listed as being beneficial to teachers’ professional growth.

Discussion and Implications for Practice

The purpose of this study was to discover teacher perceptions of the relationship of their success to enabling structures and academic optimism. Teacher responses were organized into the categories of enabling structures, academic optimism and proactive administrator action.

Three research questions were associated with this study and all were answered in the affirmative. Ample evidence confirmed the first research question – a variety of structures were named by teachers as supporting their success. According to the definition of enabling structures as being the policies and procedures that facilitated teacher work (McGuigan & Hoy, 2006), recorded responses categorized as time, scheduling and disciplinary procedures could be perceived as enabling. Enabling formalization (Sinden, Hoy, et al., 2004) was defined as a set of structures that solve problems, typified in the data set as the creation of a schedule that facilitated teacher collaboration, while enabling centralization is demonstrated in the administrators' use of their authority to help teachers by developing structures which support teaching and learning. Several teachers expressed their appreciation of disciplinary procedures which, when implemented, allowed for efficient classroom management and effective teaching.

The second research question was easily addressed, because statements regarding a positive atmosphere (academic optimism), high expectations (academic emphasis), teacher empowerment (collective efficacy) and belief in teachers' ability to choose appropriate instructional strategies (faculty trust) were clearly present in the data set. Of these components, more statements regarding academic emphasis were submitted, so this element seemed to have been most helpful to teachers. Replies regarding the overall school climate or environment were associated with academic optimism and assigned to that category; perhaps the explicit reference

to environment and subsequent ease of assignment further testifies to the connection between enabling structures and academic optimism that was quantified in the previous study.

The third research question examined patterns which were observed when the data set was organized according to performance on standardized tests. The fact that more teachers from HPS schools responded than did teachers from LPS schools was, perhaps, expected; the willingness to “go the extra mile” was an indication of a high performing school (Brown, Benkowitz, et al., 2010; Davenport & Anderson, 2002; DuFour, DuFour, et al., 2004). SES was higher for lower performing schools than for higher performing schools, thus confirming the body of literature that explains the potentially negative impact of SES (Blankenstein, 2004; Brown, Benkowitz, et al., 2010; Coleman, 1966; Harris, 2006; Kim & Sunderman, 2005; McGuigan & Hoy, 2006). Conversely, the school with the highest reading achievement score also had the highest SES. Findings pointed toward communication as a potential difference between LPS and HPS schools, since markedly fewer LPS schools referenced communication as a structure that facilitated teacher work.

Additional findings pointed toward the establishment of another category, namely proactive administrator action. This category was surprising; the researcher did not anticipate collecting data that connected direct action by administrators to teachers’ perception of an enhanced ability to execute their responsibilities. Actually, submitted responses both lauded and denigrated the actions of their administrators. The potential positive and negative impact of administrator action can be found in these statements.

Our administrator will make sure all of our needs (physical and financial) in the classroom are met in all circumstances. HPS245-4

We have a very ineffective administrator who is biased, plays favorites, pits members of the faculty against one another and creates a generally hostile work environment.

LPS134-5

Leithwood and his colleagues (2008) asserted that administrators could improve teaching and learning significantly by influencing teacher working conditions, motivation and commitment to their responsibilities; that research seems to be supported by this study.

Comparisons between this inquiry and two other studies provide additional areas for discussion. Sinden, Hoy and Sweetland (2004) performed a qualitative study of enabling structures with 29 schools; academic optimism was not reviewed in this inquiry. Data were collected by conducting interviews and aggregating responses to the school level. These four categories emerged: rules and procedures, structure and size, principal behaviors, and teacher behaviors. The category of principal behavior seemed to closely mirror the category of proactive administrator action in this study. The focus was on professional behavior, listening skills of the administrator, encouragement and effective communication skills – just like the subcategories of communication. Parent communication and professional development were not listed in Sinden's (2004) investigation.

Review of the study by Jacobson, Johnson, Ylimaki and Giles (2005) provided an excellent framework for these data. In their study of enabling structures in challenging schools, three different principles were offered – all of which were easily applied to this data set. Based on the work of Leithwood and Riehl (2003), administrators in their study exhibited three core leadership principles of accountability, caring and learning. The accountability principle incorporated the ability to apply the leader's vision and set high expectations for its

implementation. This principle bore a striking resemblance to the category of academic emphasis; high expectations were set by the administrator for staff and students to emulate.

Trust and efficacy would have fallen within the confines of the caring principle, defined by Jacobson and colleagues as the administrator's ability to influence teachers' behavior towards goal achievement by providing intellectual challenges and support. Additionally, the citations of professional development as a policy that facilitated teacher work would also have been in this category. Workshops were designed to provide teachers with tools and strategies to hone their craft. Several teachers mentioned the positive relationship they had with their administrator as well as an opportunity to serve on leadership teams that effected change in the school. Finally, the learning principle was described as the leader's ability to facilitate the work of achieving shared goals. The high number of responses listing structures that teachers deemed effective, such as effective scheduling and the implementation of a consistent school-wide discipline plan, were just a few applications of this principle that surfaced in the data set.

Implications for Practice

Several implications for future research exist. Results from this study seem to confirm the conceptual framework demonstrated in Figure 9. The existence of enabling structures in a school gives the impression that academic optimism should also be present; these constructs appear to be connected. However, additional questions arise from this line of thinking which could be answered by further study. Is it possible for enabling structures to exist without academic optimism? Is proactive administrator action a necessary by-product of enabling structures? Are there certain leadership styles that lend themselves to being able to create and sustain a positive educational environment? Although these qualities appear to reinforce each

other, more research is needed to confirm the perceived connection between enabling structures and academic optimism.

Future qualitative inquiries, more comprehensive in nature, such as a case study of a high performing school (HPS), would provide additional information about the enabling structures believed to be most important in supporting academic achievement and about issues related to proactive administrative action and the issues uncovered dealing with academic optimism. Such studies would also help to address the questions that have been posed above. Furthermore, a qualitative comparison of the perception of enabling structures and academic optimism levels in other academic settings would be in order. Studies in charter, private and public schools, as well as in middle and high schools, could ascertain potential differences in their organization that might better support enabling structures and academic optimism and allow these constructs to flourish.

Applications for current and future leaders are plentiful. Administrators should pay close attention to climate (Macneil, Prater, et al., 2009), as manifested by enabling structures and academic optimism, because a positive climate seems to facilitate teacher empowerment and student achievement (Lindhal, 2005; Sweetland, 2001). Because a positive environment appears to result from the existence of enabling structures and academic optimism, leaders would benefit from professional development on these constructs. Such training would support leaders' understanding and increase their expertise in these areas, and should be made available for both principals and assistant principals. Both groups need opportunities for targeted professional learning (Shoho & Barnett, 2010).

Conclusion

Teachers seem to welcome structure, and appear to appreciate their administrators for consistently implementing and sustaining those procedures; this study collected data that explicitly listed successful enabling structures. In addition, all three components of academic optimism clearly emerged from the data set, pointing toward the strength of that construct. The lines of evidence supported the importance of teacher empowerment or efficacy, the establishment of accountability measures or academic emphasis, and trust or the autonomy to innovate without fear of repercussion. Additional evidence supports the apparent necessity of proactive leadership – such administrative action seems to empower teachers and develop a positive school atmosphere.

Many teachers are passionate about their profession, and dedicate themselves to the craft of teaching. Administrators would do well to establish structures, in collaboration with the faculty, that facilitate student achievement. When teachers feel supported and are surrounded by structures that empower them, students ultimately benefit.

My school administrator has high expectations for his staff and for student achievement. He gives us the freedom we need to do our jobs well, and trusts us to make decisions for our students that promote student success. PS195-3

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Appendix 1

Enabling School Structure (ESS) Form

Form ESS

Directions: The following statements are descriptions of the way your school is structured. Please indicate the extent to which each statement characterizes behavior in your school from **never** to **always**.

	Never	Once in a while	Sometimes	Fairly Often	Always
1. Administrative rules in this school enable authentic communication between teachers and administrators.	①	②	③	④	⑤
2. In this school red tape is a problem.	①	②	③	④	⑤
3. The administrative hierarchy of this school enables teachers to do their job.	①	②	③	④	⑤
4. The administrative hierarchy obstructs student achievement.	①	②	③	④	⑤
5. Administrative rules help rather than hinder.	①	②	③	④	⑤
6. The administrative hierarchy of this school facilitates the mission of this school.	①	②	③	④	⑤
7. Administrative rules in this school are used to punish teachers.	①	②	③	④	⑤
8. The administrative hierarchy of this school obstructs innovation.	①	②	③	④	⑤
9. Administrative rules in this school are substitutes for professional judgment.	①	②	③	④	⑤
10. Administrative rules in this school are guides to solutions rather than rigid procedures.	①	②	③	④	⑤
11. In this school the authority of the principal is used to undermine teachers.	①	②	③	④	⑤
12. The administrators in this school use their authority to enable teachers to do their job.	①	②	③	④	⑤

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Appendix 2

School Academic Optimism Survey (SAOS)

SAOS

Directions: Please indicate your degree of with each of the statements about your school from **strongly disagree** to **strongly agree**. Your answers are confidential.

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
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 care about each other.	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** to **Very Often Occurs**. Your answers are confidential.

	Rarely	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 and serious.	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

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Appendix 3

Approval Letter from Auburn University Institutional Review Board (IRB)

1. **Proposed start date of study:** March 1, 2011
Review category: EXEMPT

2. **Project title:** Examining relationships among enabling structures, academic optimism, organizational citizenship behavior, and student achievement in high poverty schools

3. **Principal investigator:** Karen Anderson **Title:** Graduate student **Dept.** EFLT
Phone: 334-332-0272 **AU Email:** ksa0003@auburn.edu
Address: 356 Estate Avenue, Auburn, AL 36830 **FAX:** 334-887-2107
Alternate email: ksanderson@auburnschools.org

- Principal investigator: Penelope Messick **Title:** Graduate student **Dept.** EFLT
Phone: 334-670-1844 **AU Email:** pjm0011@auburn.edu
Address: 2226 County Road 1165, Troy, AL 36079 **FAX:** 334-670-5970
Alternate email: penny.messick@gmail.com

4. **Source of funding:** NOT APPLICABLE

5. **List contractors associated with the project:** N/A

6. **General research project characteristics**
 - a. **CITI training**
 - **Key personnel:** Karen Anderson, Dr. Fran Kochan, Penny Messick, Dr. Lisa Kensler
 - **CITI group completed:** Social/Behavioral
 - b. **Research methodology**
 - **Data sources:** New data
 - **Can participants be directly identified?** No
 - **Data collection will involve the use of:** Surveys/Questionnaires
 - c. **Participant information**
 - **Descriptors:** Males, Females
 - **Compensation:** No

- d. Risks (nothing checked here)
- e. Institutional biosafety approval – is IBC approval needed? No

7. Project assurances (signatures needed)

- a. PI assurances
- b. Faculty advisor assurances
- c. Department head assurance

8. Project overview (400 word maximum)

- I. **Summary of relevant research findings leading to this research proposal (Cite sources and include a reference list as Appendix A)**
- II. **Brief description of the methodology**
- III. **Expected and/or possible outcomes and,**
- IV. **A statement regarding the potential significance of this research project.**

- I. Several themes reverberate through the literature on school success factors. Socioeconomic status impacts student performance, but schools with high levels of poverty can overcome this handicap and achieve at high levels. Teachers are a vital component; the degree to which the faculty sets a strong academic tone and expects high-quality work from their students seems to be a determining factor in overall student achievement. Administrators set high expectations for teachers in these schools. Positive relationships between students and adults also seem to be important (Alliance for Excellence in Education, 2006; Beard and Brown, 2008; Kannapel and Clements; 2005), as is teachers' willingness to go beyond their minimal job expectations – organizational citizenship behavior (Diapola & Tschannen-Moran, 2001; Bogler & Somech, 2004).

Academic optimism, a latent construct, has been shown to positively correlate with student achievement (Beard and Brown, 2008; Beard, Hoy & Hoy, 2010; Duffy-Friedman, 2008; Fahy, Wu, & Hoy, 2010; Hoy, Hoy & Kurtz, 2007; Hoy, Tarter, & Hoy, 2006; Kirby, 2010; Kirby & DiPaola, 2009; McGuigan and Hoy, 2006; Smith and Hoy, 2007). A few researchers studied the relationship between academic optimism and the procedures, or enabling structures, which facilitate its development (Beard, Hoy & Hoy, 2010; McGuigan and Hoy, 2006). Academic optimism and enabling structures address the need to identify tangible factors that positively relate to academic achievement, especially important as schools respond to federal accountability mandates. This study replicates and goes beyond work done by McGuigan and Hoy (2006), exploring the relationships among academic optimism, enabling structures, organizational citizenship behavior and student success in elementary schools. However, the population differs, because high poverty schools are the focus of this research.

- II. Participants will be the teachers in high poverty schools; students attending these schools are primarily from low socioeconomic levels. Data collection will involve the administration of three surveys, all attached to this proposal. Data analysis will entail the use of descriptive statistics, hierarchical regression and factor analysis.
- III. It is anticipated that that some high poverty schools will have significantly higher levels of enabling structures, academic optimism, and organizational citizenship behavior than their counterparts.
- IV. This study could have a significant impact on the educational community in Alabama and the country. The researcher hopes to determine whether enabling structures are or are not a factor in the success of high poverty schools. If they are, the study could influence principal and teacher professional development. If they are not, then other factors must be examined to determine why differences in student achievement continue to exist.

9. Purpose

a. Clearly state all of the objectives, goals or aims of this project.

The purpose of this project is to:

- Determine whether academic optimism, measured through collective efficacy, faculty trust and academic emphasis, is related to student achievement in high achieving, high poverty schools as measured by reading and math subscores on the Alabama Reading and Math Test.
- Ascertain the extent to which a relationship exists between enabling structures and academic optimism in high poverty schools in Alabama.
- And, finally to test the degree to which enabling structures and academic optimism predict teachers’ organizational commitment.

b. How will the results of this project be used? (eg. Presentation? Publication? Thesis? Dissertation?)

The results of this project will be used to complete components of the dissertation, and will also be used in presentations and publications on the research.

10. Personnel

PI: Karen Anderson **Title:** Graduate student **Email:** ksa0003@auburn.edu **Dept.** EFLT
Roles/Responsibilities: Project design and presentation, data collection, data analysis

Individual: Dr. Frances Kochan **Title:** Professor
Email: kochafr@auburn.edu **Dept:** EFLT
Roles/Responsibilities: Project design and presentation, data collection, data analysis, chair dissertation process, direct graduate student in research

PI: Penny Messick **Title:** Graduate student **Email:** ksa0003@auburn.edu **Dept.** EFLT
Roles/Responsibilities: Project design and presentation, data collection, data analysis

Individual: Dr. Lisa Kensler **Title:** Assistant Professor
Email: lak0008@auburn.edu **Dept:** EFLT
Roles/Responsibilities: Project design and presentation, data collection, data analysis, chair dissertation process, direct graduate student in research

11. Location of research

Data will be collected in high poverty schools in the state of Alabama.

12. Participants

- a. **Describe the participant population you have chosen for this project. (If the data are existing, check here ___ and describe the population from whom data were collected.)**

The participant population is the faculty of each of the selected schools.

- b. **Describe why this participant population is appropriate for inclusion in this research project. (Include criteria for selection.)**

This participant population is appropriate for inclusion in this research because the focus of the study is on high poverty schools in AL.

- c. **Describe, step-by-step, all procedures you will use to recruit participants. *Include in Appendix B a copy of all emails, flyers, advertisements, recruiting scripts, invitations, etc. that will be used to invite people to participate. (See sample documents at <http://www.auburn.edu/research/vpr/ohs/sample.htm>.)***

1. The researcher will compile a list of Title I Schools for the 2009-2010 school year.
2. The researcher will reduce the number by developing a list of schools in which at least 60% of the student population receives free or reduced priced meals.
3. The researcher will contact each school principal by phone to ascertain their desire to participate in this study. Faculty serving in the schools which have consented to participate will comprise the participant pool.
4. A letter (see Appendix B for a copy) will be sent to all consenting schools, confirming their participation in this study. The letter will be sent via email.
5. The confirmation letter to the principals will include a link for teachers' participation that the principals will forward to their teachers. The first screen of the survey will explain the study and invite participation.

- d. Describe the type, amount and method of compensation and/or incentives for participants. (If no compensation will be given, check here.)

No compensation will be given.

13. Project design and methods

- a. Describe, step by step, all procedures and methods that will be used to consent participants.

1. This study will employ the use of electronic surveys to collect data during the spring and summer of 2011. Once permission from the principal has been secured, a letter requesting teacher participation will be sent via email to the principal, who will then forward the information to teachers.
2. Teachers who agree to participate will click on a link found in the letter which will take them directly to the survey.
3. Each week, for three weeks, Follow up requests for survey completion will be sent via email to each participating administrator in order to maximize the response rate.

- b. Describe the procedures you will use in order to address your purpose. Provide a step by step description of how you will carry out this research project.

1. The researchers will contact each principal to request permission to participate in this study.
2. The researchers will send an informational letter via email to participating administrators.
3. The researchers will send a link to the survey instrument to the participating administrators via email.
4. Participating principals will forward that link to their faculty so that each teacher can complete the survey in a timely fashion.
5. Each week, for three weeks, the researchers will send a follow-up request to participating principals, via email, to encourage all teachers to participate.
6. The researchers will compile and analyze the data.

- c. List all data collection instruments used in the project, in the order they appear in Appendix C.

There are three instruments used in this study. The first, designed by Dr. Wayne K. Hoy (2003), is the School Academic Optimism Survey (SAOS), which assesses academic optimism. Created by Dr. Hoy and Dr. Scott Sweetland, the second tool is called the Enabling School Structure (ESS) survey, which measures enabling structures. The third

instrument measures Organizational Citizenship Behavior (OCB). All three surveys are attached.

d. Data analysis: Explain how the data will be analyzed.

The researcher will use quantitative data analysis methods – in this case, descriptive statistics, hierarchical regression and factor analysis.

14. Risks and discomforts: List and describe all of the risks that participants might encounter in this research. If you are using deception in this study, please justify the use of deception and be sure to attach a copy of the debriefing form you plan to use in Appendix D.

The researcher does not expect any risks or discomforts associated with this study.

15. Precautions: Identify and describe all precautions you have taken to eliminate or reduce risks. If the participants can be classified as a “vulnerable” population, please describe additional safeguards that you will use to assure the ethical treatment of these individuals. Provide a copy of any emergency plans/procedures and medical referral lists in Appendix D.

The summary is an anonymous and relatively short instrument; therefore, there is no risk in taking it.

If using the Internet to collect data, what confidentiality or security precautions are in place to protect (or not collect) identifiable data? Include protections used during both the collection and transfer of data.

Security policies have been set forth by surveymonkey.com as follows:
http://www.surveymonkey.com/Monkey_Security.aspx

SurveyMonkey is aware of our users’ privacy concerns and strives to collect only as much data as is required to make our users’ experience with SurveyMonkey as efficient and satisfying as possible. We also aim to collect data in the most unobtrusive manner possible.

SurveyMonkey utilizes some of the most advanced technology for Internet security commercially available today. When a user accesses secured areas of our site, Secure Sockets Layer (SSL) technology protects user information using both server authentication and data encryption, ensuring that user data is safe, secure, and available only to authorized persons.

SurveyMonkey requires users to create a unique user name and password that must be entered each time a user logs on. SurveyMonkey issues a session "cookie" only to record encrypted authentication information for the duration of a specific session. The session cookie does not include either the username or password of the user.

In addition, SurveyMonkey is hosted in a secure data center environment that uses a firewall, intrusion detection systems, and other advanced technology to prevent

interference or access from outside intruders. The data center is a highly protected environment with several levels of physical access security and 24-hour surveillance.

However, no method of transmission over the Internet, or method of electronic storage, is perfectly secure. Therefore, we cannot guarantee absolute security. If SurveyMonkey learns of a security systems breach that affects certain users, then we will attempt to notify those users electronically so that they can take appropriate protective steps. SurveyMonkey may also post a notice on our website if a security breach occurs.

If you have any questions about security on the SurveyMonkey website, please email us at support@surveymonkey.com.

16. Benefits

- a. List all realistic direct benefits participants can expect by participating in this specific study.**

There are no direct benefits to participants of the study.

- b. List all realistic benefits for the general population that may be generated from this study.**

Results of this study could have implications for administrators, as it is hoped that specific strategies that positively relate to student achievement will be identified.

17. Protection of data

- a. Will data be collected as anonymous? Yes (skip to G)**
- b. Will data be collected as confidential? No**
(Confidential means you will collect and protect identifiable data.)
- c. If data are collected as confidential, will the participants' data be coded or linked to identifying information?**
- d. Justify your need to code participants' data or link the data with identifying information.**
- .
- e. Where will code lists be stored?**
- .
- f. Will data collected as "confidential" be recorded and analyzed as "anonymous"?**
(If you will maintain identifiable data, protections should have been described in #15.)

- g. Describe how and where the data will be stored (e.g. hard copy, audio cassette, electronic data, etc.), and how the location where data is stored will be secured in your absence. For electronic data, describe security. If applicable, state specifically where any IRB-approved and participant-signed consent documents will be kept on campus for 3 years after the study ends.**

The electronic survey data will remain electronic and will be stored on the researcher's password protected computer. Any handwritten notes from follow-up interviews will be stored in a locked file cabinet in Dr. Kochan's office in Haley Center, whose office is locked in her absence. All data will be stored as anonymous after December 30, 2011.

The IRB-approved and participant-signed consent documents for those participants who choose to participate in any follow-up conversations will be stored in the locked file cabinet in Dr. Kochan's office in Haley Center until August 2014 (three years after the study ends).

- h. Who will have access to participants' data?**

Dr. Kochan, Dr. Kensler, Karen Anderson, and Penny Messick.

- i. When is the latest date that confidential data will be retained? (Check here if only anonymous data will be retained.)**
- j. How will the confidential data be destroyed? (NOTE: Data recorded and analyzed as "anonymous" may be retained indefinitely.)**

Data are anonymous and will be kept indefinitely.