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JAY M. ENSLEY
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ACADEMIC OPTIMISM AND COLLECTIVE STUDENT TRUST OF TEACHERS:
A TEST OF THE RELATIONSHIP IN URBAN SCHOOLS

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL LEADERSHIP AND POLICY STUDIES

BY

_____
Dr. Curt Adams, Chair

_____
Dr. Patrick Forsyth

_____
Dr. Vickie Lake

_____
Dr. Beverly Edwards

_____
Dr. Timothy Ford

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Dedication

This dissertation is dedicated to my wife, Eden, and our children, Hays, Halle, Hollis, and Hugh. Eden, you are my best friend, supporter, coach, and companion. You have inspired me time after time to continue this journey, even though I made it a long one. Thank you for being such a wonderful mother and wife during this process. Your love and dedication to our children is unsurpassed, and your selfless actions amaze me every day. I am greatly blessed, and I love you dearly.

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ABSTRACT

While knowledge is expanding on the role of trust in effective schooling, it is surprising that relatively little effort has been made to study student trust in teachers. Student trust on the surface appears to be a resource that low income, urban students can leverage as a means to support their learning and development. This study investigates the relationship between normative conditions in schools and student trust. Of particular interest is the influence of academic optimism on student trust formation. Academic optimism has consequences for student achievement, and the conditions that form this general norm would seem to be necessary for student trust. The purpose of this study was to test the relationship between academic optimism and collective student trust in urban schools after controlling for contextual conditions that can enhance or impede cooperative student-teacher interactions. This study was built upon a conceptual framework using the collective trust theory to better understand how norms such as academic optimism impact collective student trust. Quantitative survey data were collected from teachers and students in 79 elementary and secondary schools in a large urban district. Students were randomly sampled from the 5^{th}, 7^{th}, 9^{th}, and 11^{th} grades. Being measured was academic optimism and student trust in teachers.

Findings indicate that academic optimism is related to student trust in teachers, even after controlling for differences in school composition. Evidence from a post hoc analysis of the data suggests that student trust decreases as school level increases, yet the academic optimism-trust relationship still exists in secondary schools. Schools that establish a culture of optimism are likely to foster student trust; and student trust can support the learning and development in low income, urban settings.

CHAPTER 1: INTRODUCTION

In an era where school reform is the overwhelming educational push from our nation's leaders, it is surprising that few policies target normative conditions associated with effective schools. Rather, reform policies and models tend to emphasize the technical tasks of teaching and learning over the relational environment. Partly in response to this lack of balance, efforts to study quality relationships, successful leadership, cooperation, and shared values regarding student welfare have become common among educational researchers (Forsyth, Adams, & Hoy, 2011). Trust is one social condition that has emerged from 30 years of research as a necessary resource for school improvement. As Forsyth, Adams, and Hoy (2011) claim, trust operates as a lubricant for cooperative relationships among teachers, students, administrators, and parents who share responsibility for student development.

Nearly three decades of trust research in schools describe how different forms of trust have both a distinctive and combined effect on school performance. For example, faculty trust in colleagues supports collaboration, shared instructional influence, and professional autonomy among teachers (Tschannen-Moran, 2001, 2004, 2009); whereas, faculty trust in clients is related to student achievement (Goddard, Salloum, & Berebitsky, 2009; Goddard, Tschannen-Moran, & Hoy, 2001). While knowledge is expanding on the role of trust in effective schooling, it is surprising that relatively little effort has been made to study student trust in teachers. Student trust on the surface appears to be a resource that low income, urban students can leverage as a means to support their learning and development.

Research Problem

The lack of research evidence on the formation of collective student trust in urban schools was the research problem addressed by this study. Collective student trust facilitates positive interactions among teachers and students who have the potential to shape student identification with school, self-regulated learning, and academic performance (Adams, 2013). Student trust seems particularly important in urban contexts where poverty and other environmental risks can lead to tenuous social networks and limited connections to adults (Coleman, 1987; Wilson, 1987).

How do urban schools build student trust? Evidence on this question is scarce. Adams (2010) in a small sample of 36 urban elementary schools found that home environments and faculty trust where predictors of collective student trust. The Adams study is the only known empirical evidence on the formation of student trust in teachers. Given the importance of student trust for effective learning, educators need to understand conditions that give rise to trusting relationships between students and teachers. This study addresses the relationship between normative conditions in schools and student trust. Of particular interest is the influence of academic optimism on student trust formation. Academic optimism has consequences for student achievement (Hoy, Tarter, Woolfolk-Hoy, 2006b), and the conditions that form this general norm would seem to be necessary for student trust.

Research Purpose

The purpose of this study was to test the relationship between academic optimism and collective student trust in urban schools after controlling for contextual conditions (i.e. poverty rate, grade configuration, percent non-minority, prior achievement) that can

enhance or impede cooperative student-teacher interactions. Evidence of the effects of academic optimism on teacher performance points to a plausible relationship with student trust (Hoy, Tarter, & Woolfolk Hoy, 2006b). Further, collective trust theory proposes that a task environment supportive of positive and cooperative interactions fuels social exchanges that build trust. This study brings together evidence on academic optimism and collective trust to understand how shared beliefs of teachers may influence actions that students would perceive as trustworthy. The literature review and conceptual framework point to a possible relationship between academic optimism and student trust. Thus, the empirical part of the study tests this relationship in urban schools.

As with all research, this study has limitations that need to be identified. First, the data for this study were drawn from one urban district in one state. The sample is not representative of suburban or rural schools. In fact, the sample of convenience may not be representative of urban schools either. Yet, suburban and rural settings may have unique external, internal, and task contexts that have differential effects on student trust. Second, the sample from this study included only a limited number of high schools. The majority of empirical evidence is based on elementary and middle schools. Inferences to high schools may not be as accurate with a smaller sample. Although the high school sample was small, efforts were still taken to test the academic optimism and trust relationship in high schools. Finally, the analysis tested the relationship between academic optimism and student trust, but the study does not describe specific practices or behaviors that lead to an optimistic climate or to greater student trust.

CHAPTER 2: REVIEW OF LITERATURE

The review of literature builds theoretical and empirical support for the relationship between academic optimism and collective student trust in teachers. Before synthesizing the evidence, definitions of trust and academic optimism are advanced and descriptions of the conceptual properties for each construct are delineated. The review of literature concludes by situating academic optimism within the theory of collective trust formation.

Trust Definition

In the last sixty years, efforts to explain and characterize trust have yielded several conceptualizations of the construct. As a result of the Cold War conflict in the late 1950s, trust was studied to understand how destruction and economic failure could be prevented (Deutsch, 1958). Trust was conceptualized as a personality trait in individuals during the 1960s when society greatly questioned the fidelity of government and its role in society (Rotter, 1967). As the dynamics of the traditional family changed throughout the 1980s, studies of trust shifted from psychological constructions to social-psycholocical relationships (Johnson-George & Swap, 1982; Larzelere & Huston, 1980; Rempel, Holmes, & Zanna, 1985). With technology advancements and continual changes in society during the 1990s, trust was studied on an organizational level (Gambetta, 1988; Kramer & Tyler, 1996; Shaw, 1997), sociological level (Coleman, 1990), and economical level (Fukuyama, 1995). Research of trust in educational settings emerged in the mid 1980's to address the social and academic deficiencies growing in public schools (Hoy & Tschannen-Moran, 1999).

As theories explaining trust have developed over the last six decades, so have properties used to define the concept. Bryk and Schneider found that early studies defined trust as an expectation or belief based on positive outcomes of a relationship. More recent definitions specify trust as an organizational property formed through intrapersonal discernments and interpersonal exchanges that are consistent with role expectations (Bryk & Schneider, 2002). Adams (2008) claimed that trust has been conceived of as an individual belief, a group norm, and a behavior.

Hoy and Tschannen-Moran (1999) provide the definition of trust frequently used in educational research. Specifically, they define trust as "an individual's or group's willingness to be vulnerable to another party based on the confidence that the latter party is benevolent, reliable, competent, honest, and open " (p. 189). This study uses the Hoy and Tschannen-Moran definition for student trust in teachers. Specifically, student trust is defined as students' willingness to risk vulnerability with teachers based on the confidence that teachers are benevolent, competent, open, reliable, and honest. Inherent in the trust definitions are conditions that nurture trust and the facets that define one's trustworthiness.

Conditions of Trust

Forsyth, Adams, and Hoy (2011) note that trust, much like a plant, requires certain conditions to grow and thrive. Regardless of the trustor, trustee, or setting in which trust forms, three prominent conditions must exist for trust to emerge: interdependence, vulnerability, and risk. These elements interact to create an opportunity for trust to form.

Interdependence is a required condition because it provides the initial need for trust in a relationship. Rousseau and colleagues (1998) assert the presence of interdependence occurs when the interests of one party cannot be achieved without reliance upon another party. Interdependence precedes trust by providing a situation where one party depends on the good will of another party in order to achieve a desired outcome. Without interdependence, there is no need for trust. An individual can rely on his/her own action to accomplish a goal when the task does not involve cooperative action (Forsyth, Adams, & Hoy, 2011). The more interdependence in relationships, the more important trust becomes as a lubricant for cooperative actions.

In the student-teacher relationship, the requirement for interdependence is met due to student dependence on teachers for development of cognitive, emotional, and social competencies. Students depend on teachers for learning, academic support, social support, and emotional support. For example, teachers help students learn math, reading, and writing, but they also help students learn about mainstream values, norms, and expectations. That is, effective teachers teach much more than academics. Interdependence is a perpetual condition in the student-teacher relationship.

Vulnerability is another condition of trust (Forsyth, Adams, & Hoy, 2011). In the act of trusting another, one makes himself vulnerable in the belief that the trusted individual will act in ways that are not harmful or negative. Individuals who are trusting have a positive expectation in the actions of those whom they trust. Persons willing to purposefully place themselves in a vulnerable position commit an act of trust. In schools, students are vulnerable to teachers. Students have less power and they are not in authority positions, making them vulnerable to the structures, processes, and behaviors

used by teachers to regulate learning. From vulnerability, trust is necessary to trigger behaviors that engage students in academic tasks. Students who trust make themselves vulnerable because they perceive teachers as helpful, not harmful or detrimental to their success.

Risk is also a necessary condition for trust. Risk is preceded by vulnerability and is the behavioral response to trust. The uncertainty of knowing the intentions of one party to act in the best interests of another creates risk (Lewis & Weigart, 1985). Individuals must decide whether or not to risk vulnerability based on their confidence in expected positive outcomes. Trust leads a person to risk vulnerability. For students, risk can be embraced when the intentions of teachers are perceived to be in the best interests of students. When uncertainty is reduced through patterns of positive interactions and experiences, students are willing to take risks that can result in positive outcomes. Students must risk vulnerability to engage authentically in learning tasks. With low trust, students are likely to protect themselves from perceived threats by not engaging in learning at levels that can maximize their potential.

In short, the combined effect of interdependence, vulnerability, and risk shape the level and form of the trust relationship (Rosseau et al., 1998). Although distinct concepts, interdependence, vulnerability, and risk are not mutually exclusive. Interdependence leads to vulnerability and vulnerability necessitates risk. Without these conditions, trust would not be necessary. As it stands, these conditions are inherent characteristics of instructional climates. Interdependence, vulnerability, and risk are necessary for trust, but it is actually the facets of trust that determine the degree to which students perceive teachers as trustworthy.

Facets of Trust

Trust facets refer to behaviors that shape the willingness of individuals and groups to risk vulnerability. Five facets have emerged from empirical studies across a variety of disciplines and fields of study (e.g. psychology, economics, sociology, education, and management) (Hoy & Tschannen-Moran, 1999; Tschannen-Moran & Hoy, 2000). A trustor is more likely to view a trustee as trustworthy if the trustee is perceived as acting benevolently, reliably, competently, honestly, and openly. Although trust in a relationship begins with one person's willingness to risk vulnerability, the risk is taken with the belief and confidence that the second person exhibits the facets of trust (Hoy & Tschannen-Moran, 1999).

Trust facets emerge through patterns of action and interaction between students and teachers. What counts as evidence of trustworthiness for teachers is not likely to be the same for students. That is, student perceptions and teacher perceptions differ. Therefore, it is important to situate the facets of trust in the context of student perceptions in order to illustrate teacher behavior that is likely to build student trust in teachers.

Benevolence

Mayer, Davis, and Schoorman (2006) argue that benevolence relates to altruistic behavior engendered by care and compassion for the other person. In every relationship there are opportunities to express compassion and empathy for others. Teachers can convey benevolence through actions that express concern and compassion for the overall well-being of students, not just concern for student academic performance (Adams & Forsyth, 2009). Benevolent teachers make students feel well cared for and are ready to

help students unconditionally. Students are more likely to trust the intentions of their teachers when they perceive teachers as caring, compassionate, and willing to help them succeed.

Reliability

A reliable person is described as one who is consistent with his/her words and behavior (Adams & Forsyth, 2009). Consistency is the key characteristic of a reliable teacher. Given that students depend on teachers for effective instruction, teachers are more likely to be considered reliable if they consistently demonstrate a commitment to effective teaching. If teacher behavior is consistent with expectations of students and the school, teachers are most likely to be perceived as acting reliably. Consequently, if teachers act inconsistently with instructional practices, classroom management, or discipline they will be viewed as less reliable (Adams & Forsyth, 2009). Students who perceive teacher behavior as inconsistent, are not likely to trust them.

Competence

Competence is the ability to execute behaviors that are necessary to produce a desired outcome (Mishra, 1996). Competence is an important characteristic of teachers because students depend on teacher abilities and skills to maximize student learning. For example, teachers may be benevolent and reliable, but if teachers do not know math or how to teach math so students understand it, trust for teachers is less likely to form. Adams and Forsyth (2009) argue that although teacher competence is often gauged by assessment scores, students largely judge teacher competence by instructional practices. Students will be less inclined to risk vulnerability or trust if they have limited confidence in the instructional ability of teachers.

Honesty

Hoy and Tarter (2004) used characteristics such as truthfulness, integrity, and authenticity to describe honesty. Teachers who act honestly are genuine with their words and actions, are humble, refrain from pointing blame, and behave responsibly by not covering up their actions or deficiencies (Adams & Forsyth, 2009). It is important for students to believe what their teachers communicate. In the student-teacher relationship it is simple to describe what honesty from a teacher is not, rather than to describe how it manifests itself. For example, a dishonest teacher may blame poor student performance on factors other than his/her instruction such as student lack of intelligence or economic circumstances. If a teacher displays behaviors that are not genuine and forthright, students are less willing to perceive them as honest, reducing the trust in the teacher.

Openness

Openness addresses the tendency of a person to communicate and inform those involved of all relevant and important information. Additionally, openness refers to one's physical and emotional presence in social exchanges (Hoy & Tarter, 2004). Although providing complete and pertinent information is important, it is also important for teachers to be physically and emotionally present in social exchanges with students. A teacher who is effectively open will genuinely listen and discuss problems with students, will show concern for student well-being, and will recognize successes of students. Openness may be seen by students as genuinely asking students about their endeavors outside of school; or initiating conversations about student success; or reaching out and offering help to struggling students. Another aspect of openness is the comfort students feel in approaching and talking to their teachers. Teachers who display

such care and consideration in social exchanges with students are more likely to foster trust by being present and open to student needs.

If the above trust facets are observable in teacher behavior, students are more likely to perceive teachers as trustworthy. All trust facets are important in forming student trust perceptions. That is, teacher competence, benevolence, openness, reliability, and honesty combine to shape trust beliefs. Teacher behaviors exhibiting the facets of trust are a means to better student-teacher relationships. Next, evidence on the formation of trust is reviewed so as to identify general mechanisms in schools that support shared trust beliefs.

Formation of Trust

How does trust form in organizations like schools where core tasks are carried out through repeated social action? This question has been the object of much research. Educational evidence comes primarily from studies on the formation of faculty trust and parent trust. With the absence of literature on student trust, evidence from studies on other trust forms is examined to better understand the general sources of trust formation.

Adams (2008) synthesized three decades of trust research to construct a model on antecedents of trust. His generalized model was derived from studies on faculty trust in principal, faculty trust in colleagues, and parent trust in schools. According to Adams (2008), three general mechanisms work to build trust among school members: behavioral, cognitive, and affective mechanisms. These trust mechanisms are the foundation by which trust builds among teachers, students, and parents. The mechanisms should be viewed as overlapping sources of information that converge within a social construction process.

Behavioral Dimension

The behavioral dimension consists of actions by the trustee that elicit beliefs by the trustor. Studies on faculty trust have operationalized behavior in different ways. For example, teacher engagement and collaboration were important properties of the behavioral dimension for faculty trust in colleagues (Hoy, 2002). For principal trust, supportive and collegial leadership of the principal were the most important features of trustworthy principal behavior (Tarter & Hoy, 1988). Consistent with each form of trust is the fact that the behavior of the trustee largely determines if others will perceive them as benevolent, open, reliable, competent, and honest. Evidence suggests that three general types of behavior are associated with trust: authentic, open, and cooperative actions (Forsyth, Adams, & Hoy, 2011).

Authentic behavior by the trustee is a key element in the development of trust. Individuals who act authentically accept responsibility, treat others with respect, do not manipulate, and demonstrate a saliency of self over role demands. Studies of faculty trust in the 1980s and 1990s found that the principal's authenticity was directly related to faculty trust in the principal (Hoy & Kupersmith, 1984; Hoffman, Sabo, Bliss, & Hoy, 1994). Authentic behavior by teachers was also found to be strongly related to faculty trust in colleagues and faculty trust in principal (Hoy, Hoffman, Sabo, & Bliss, 1996). Faculty trust in schools was stronger when teachers were viewed as accepting responsibility for outcomes and as genuine in their commitment to student achievement (Tschannen-Moran, & Hoy, 1998).

Openness is defined as the extent to which relevant information is shared and received (Forsyth, Adams, & Hoy, 2011). Tarter, Bliss, and Hoy (1989b) found that

openness in school climates is closely related to the atmosphere of trust in the school. The basis of their claim comes from evidence that shows a relationship between openness and faculty trust. Several studies support the importance of openness for trust formation (Forsyth, Adams, & Hoy, 2011). Open school climates facilitate faculty trust and faculty trust reinforces a climate of openness regardless of the school level (Forsyth, Adams, & Hoy, 2011). Open behavior by those who possess formal authority in a relationship can go a long way for building trust. For example, Tarter and Hoy (1988) found principals who demonstrated open leadership engendered greater faculty trust.

Schools depend on the cooperation of teachers, parents, students, and administrators for the success of their goals and mission. Forsyth, Adams, and Hoy (2011) observed that to achieve cooperation, organizations must reduce uncertainty with social controls supplemented by the increase of trust. That is, control and trust together contribute to productive and reciprocal cooperation between an organization's various groups. This claim is consistent with an explanation from Leifer and Mills (1996) that control processes can enhance behavioral predictability, thereby facilitating of cooperation and supporting trust. In the school setting Forsyth, Adams, and Hoy (2011) argued that the appropriate control mechanisms for the enhancement of cooperation in schools should be soft, built on communication and expressed as influence and persuasion rather than prescription. The soft social controls mentioned to reduce uncertainty are consistent with confidence in a partner's competence and judgment, laying a foundation for trust (Larson, 1992).

Empirical evidence shows the processes of social control are often the same processes involved in the formation of collective trust (Forsyth, Adams, & Hoy, 2011).

On the other hand, impersonal or hard control mechanisms regularize behaviors without face-to-face contact using rules, policies, laws, and hierarchy (Forsyth, Adams, & Hoy, 2011). It would seem that in extreme cases, impersonal controls could possibly eliminate all uncertainty, uncooperative action, and risk. Yet Sitkin and Stickel (1996) found that these impersonal or formal controls can produce distrust, especially if the controls are not appropriate to the cooperative task. This also supports Gouldner's (1954) findings that with impersonal controls, cooperation and predictability may be reduced to a minimum.

Although evidence on the importance of authentic, open, and cooperative behavior for trust is limited to studies on teachers, it is not a far stretch to extend this evidence to students. Student trust is likely to be associated with teacher behaviors that are authentic, open, and cooperative. If students perceive teachers as physically and emotionally present, they will be more inclined to risk vulnerability. Similarly, cooperative actions between students and teachers are likely to elicit positive and generative beliefs. In short, teacher actions in and outside of the classroom are potent determinants of student trust.

Cognitive and Affective Dimension

Cognitive and affective conditions in schools also act as antecedents of trust. Affective and cognitive mechanisms relate to the instinctive feelings and beliefs that underpin behavior. Important cognitive states relate to beliefs of one's ability to accomplish goals. Important affective states are ones that foster feelings of attachments and belonging (Adams, 2008).

Efficacy beliefs are associated with higher trust in faculty colleagues (da Costa, & Riordan, 1996). Efficacy is confidence in the collective ability of the faculty to enact

learning (Goddard, Hoy, & Woolfolk Hoy, 2000). Hoy and Tarter (2011) state that efficacy operates by influencing cognitive, motivational, affective, and decisional processes, leading to optimism within organizations. In the form of parent trust, the belief that parents are influential on school decisions and valued as a school partner leads to stronger trust discernments (Adams, 2008). Beliefs of efficacy or influence are not direct sources of trust; they function as fuel for behavior that would be perceived as trustworthy.

Like cognitive states, affective states are also found to build trust in similar ways. That is, feelings of general value held for collective role groups are instrumental in trust production (Adams, 2008). In education, feeling a connection or an attachment with the school or those within it is essential for trust to exist. In the teacher-principal relationship, it was found that teacher trust is increased when principals facilitate enabling structures and when teachers feel engaged with the school (Adams, 2008). In the form of faculty trust, teacher sense of positive morale and open culture are important factors Adams, 2008). For parents, climates that satisfy student need to belong are strong predictors of parent trust (Adams, 2008). Each of these examples stresses the importance of feelings held by the individual or group acting as the trustor. Similar to cognitive factors, people feeling a positive connection or an attachment to each other creates a climate where individuals act in trustworthy ways.

To summarize, behavioral, cognitive, and affective mechanisms interact to form trust discernments in school groups. For principals, their open and authentic behavior becomes paramount in the formation of trust discernments. Teachers trust principals who are authentic, present, and accept responsibility. Faculty trust is also stronger when

colleagues act cooperatively and collegially (Adams, 2008). Extending the evidence to students, teacher behavior that is authentic, open, and cooperative is likely to facilitate student trust. Knowing that teacher behaviors hold the strongest significance in the formation of student trust, the focus is turned to factors that influence teacher behavior. Specifically, how academic optimism shapes teaching practices and actions.

Academic Optimism

Given evidence on the influence of behaviors, cognitive beliefs, and affective states for trust, the concept of academic optimism emerges as an apparent school condition that creates opportunities for student trust to flourish. Academic optimism is composed of academic emphasis, collective efficacy, and faculty trust, concepts that combine to form a positive view of teaching and learning in schools. Hoy and colleagues (2006) developed the construct of academic optimism explaining:

> Optimism is an appropriate overarching construct to unite efficacy, trust, and academic emphasis because each concept contains a sense of the possible. (p. 145)

Collective efficacy is the cognitive dimension of academic optimism; faculty trust in parents and teachers is the affective dimension; and academic emphasis is behavioral.

Teachers are the nucleus of each dimension of optimism by modeling achievement-oriented behaviors, holding beliefs about the capabilities of the group, and placing trust in students and parents. Each dimension of optimism shapes the beliefs and actions of teachers, both in terms of how they teach and how they interact with students (Hoy, Tarter, & Woolfolk Hoy, 2006a). As academic optimism changes, so do the beliefs and behavior of teachers. In turn, collective teacher behavior influenced by

optimism strongly increases opportunities for a climate of collective trust, consequently affecting student attitudes and actions. To understand the possible effect of academic optimism on student trust, this section will describe each property of optimism and explore its effects.

Academic Emphasis

Hoy, Tarter, and Hoy (2006b), define academic emphasis as the extent to which a school is driven by a mission for academic excellence. Characteristics of academic emphasis include high, yet achievable academic goals for students, an orderly and serious learning environment, students being motivated to work hard, and students respecting academic achievement (Hoy & Miskel, 2005; Hoy, Tarter, & Kottkamp, 1991). That is, academic emphasis in school is a product of high expectations for learning, a focused learning environment, a belief in the capability of students to achieve, engaging instructional practices, and the pursuit and respect for academic success. Goddard, Sweetland, and Hoy (2000) state that collective views about academic emphasis are social perceptions that support teaching and learning in the school.

Hoy and his colleagues (1991) found that academic emphasis as a collective property was positively and directly related to student achievement in middle and high schools, even after controlling for economic composition. From the sample of 58 secondary schools, academic emphasis was a strong force for school effectiveness whether it was conceived as the commitment of teachers to the school, teacher judgments of the effectiveness of the school, or actual student test scores. Goddard, Sweetland, and Hoy (2000) also found that academic emphasis was a significant predictor of achievement in math and reading in elementary schools, even when they controlled for

socioeconomic status. In a sample of 45 urban elementary schools, the researchers found that academic emphasis was positively associated with the differences in student achievement between schools. The study also suggested that schools with strong academic emphases positively affected achievement for impoverished and minority students. Goddard and colleagues (2000) state that in a school with high academic emphasis, school members are more likely to act purposefully to enhance student learning. This compelling evidence supports the importance of academic emphasis for student achievement as a necessary element of a school's environment.

Collective Efficacy

Collective efficacy is the judgment of teachers that the faculty as a whole can organize and execute the actions required to have positive effects on student learning (Goddard, Hoy, & Woolfolk Hoy, 2004). Several studies including Goddard, Hoy, and Woolfolk Hoy (2000) found that the role of collective efficacy in promoting school achievement in urban elementary schools was significant. Moreover, Hoy, Sweetland, and Smith (2002) found it the prominent predictor of student achievement over socioeconomic status and academic emphasis. They also added that academic emphasis is most powerful when collective efficacy is apparent. Furthermore, collective efficacy leads teacher behaviors not only towards academic emphasis, but also persistence, and reinforcement of social behaviors conducive in schools. Collective efficacy emerges as a vital component of a positive school culture.

Faculty Trust in Parents and Students

Faculty trust is defined as a faculty's willingness to be vulnerable to parents and students based on the confidence that the parents and students are benevolent, reliable,

competent, honest, and open. Faculty trust in parents and students has been found to coalesce into a shared perception (Goddard, Tschannen-Moran, & Hoy, 2001; Hoy & Tschannen-Moran, 1999). Just as academic emphasis and collective efficacy, it can be argued that faculty trust in parents and students is a collective school property. Benevolence, openness, reliability, competence, and honesty vary together to create an integrated construct of faculty trust in schools (Hoy & Tschannen-Moran, 1999, 2003).

Goddard et al. (2001) found a significant relationship between faculty trust in clients (parents and students) and higher student achievement even when controlling for SES. Hoy (2002) replicated this finding in the high school setting, also controlling for SES. When parents, students, and teachers share common learning goals, faculty trust becomes salient and contributes to a culture of academic optimism.

The characteristics of academic emphasis, collective efficacy, and faculty trust, combine to form a positive belief about teaching and learning in schools (Hoy et al., 2006b). That is, each aspect of optimism influences teacher behavior. Forsyth, Adams, and Hoy (2011) claim that academic optimism influences many organizational norms, beliefs, and practices in schools. The behaviors and beliefs of teachers establish norms as academic optimism changes. When academic optimism is present in schools, the likelihood of positive teacher behaviors, beliefs, and interactions will be more plausible. In turn, teacher behavior influenced by optimism will likely enhance the opportunities for a climate of trust.

CHAPTER 3: CONCEPTUAL FRAMEWORK: COLLECTIVE TRUST THEORY

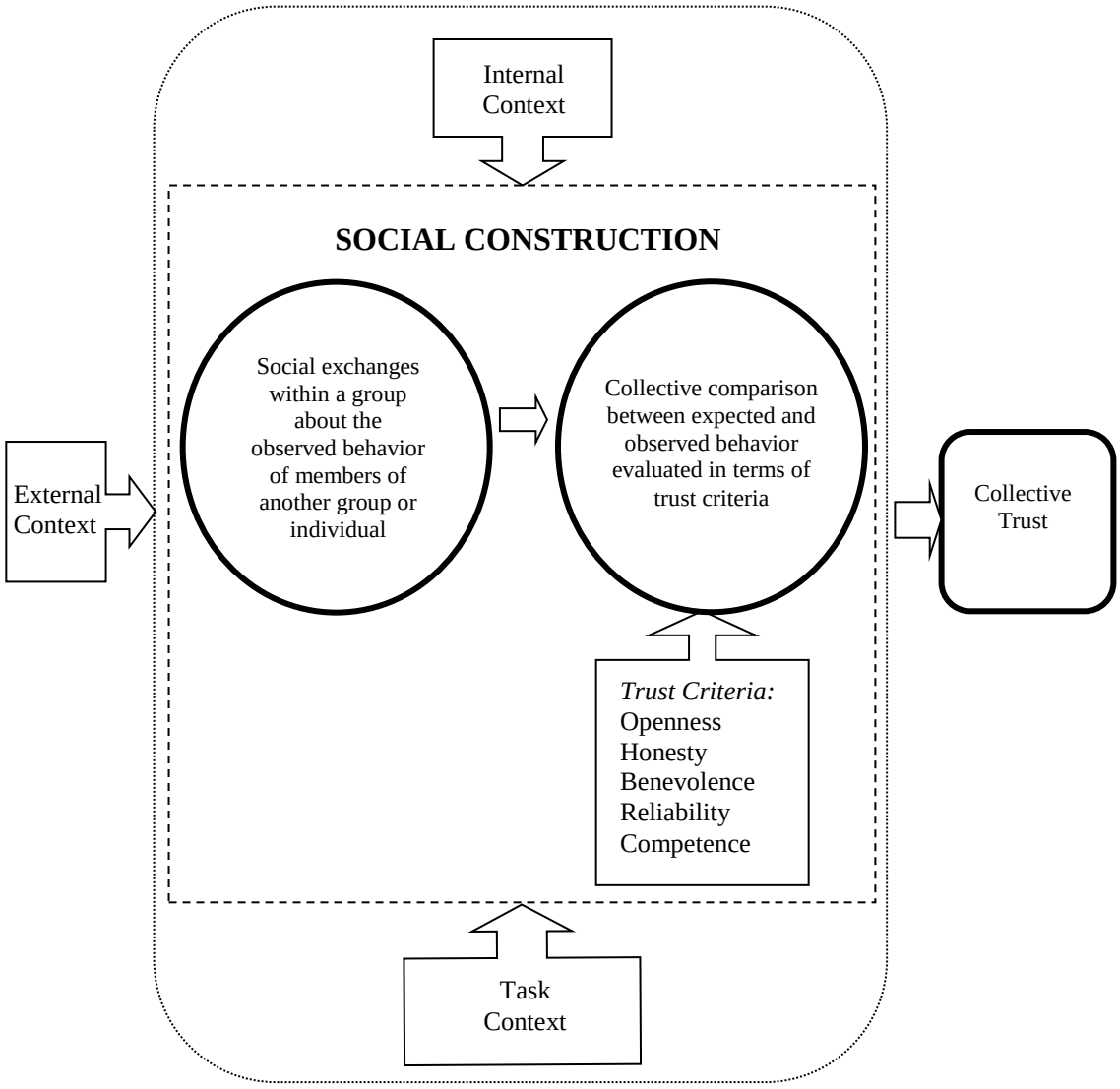
This study is on the formation of collective student trust. Collective trust is different than Bryk and Schneider's (2002) notion of relational trust. Simply stated, relational or interpersonal trust is the trust that a single individual has for another in a situation that carries risk. At the school level, relational trust is a compilation of individual discernments (Forsyth, Adams, & Hoy, 2011). Bryk and Schneider (2002) developed the concept of relational trust showing how reciprocal interactions, mutual dependencies, and power asymmetry among participants in a school community accumulate to shape interpersonal relationships. Relational trust in schools stems from social relationships in which risks of vulnerability to power and authority exist. Mutual respect, integrity, and shared values promoting the welfare of students were found to reduce the vulnerabilities and strengthen relationships with the school community (Bryk & Schneider, 2002). With relational trust, the everyday operations of a school and its capacity for fundamental change are enhanced for school leaders and personnel (Bryk & Schneider, 2002).

Collective trust is a group norm, not an individual belief. Forsyth, Adams, and Hoy (2011) define collective trust as "a stable group property rooted in the shared perceptions and affect about the trustworthiness of another group or individual that emerges over time out of multiple social exchanges within the group" (p. 22). The socially developed, shared trust beliefs determine the group's willingness to be vulnerable to another group or individual. As a norm, trust influences beliefs and behaviors that lead individuals to work collectively toward common goals. Collective action that is consistent with expectations and responsibilities is constrained when a

normative trust environment has not been established. Studying collective trust versus relational trust allows for distinctive insights into the social components of school organizations that give rise to positive social ties.

Like relational trust, collective trust is found on the premise that social interactions, or the lack of relational ties, partly determine the quality of learning in schools. Because trust is foundational for school effectiveness (Cunningham & Gresso, 1993), it is important for school administrators to understand how collective trust forms. A theory of collective trust formation is advanced by Forsyth, Adams, and Hoy (2011). The social construction of collective trust is directly shaped by interactions that occur within role groups and between role groups. Social construction is indirectly affected by conditions and events in the internal, external, and task context.

Figure 1. Theory of Collective Trust Formation



The social construction process is important in shaping collective trust. The process develops through social exchanges, verbal and nonverbal, that occur naturally and necessarily among members of a group. From the social exchanges, stories, experiences, opinions, group and personal interpretations, and feelings about the observed behaviors of another group or individual are consciously and unconsciously developed and shared. The observed behavior is compared to the social expectations held

by the group and judged against the criteria of trustworthiness. The criteria include evidence that the referent group acts openly, honestly, benevolently, reliably, and competently. After multiple exchanges over time, a group consensus materializes producing socially constructed, shared, collective trust beliefs about another group or individual, which render essential consequences for individual and group outcomes (Forsyth, Adams, & Hoy, 2011).

Surrounding social construction are three contextual elements that condition the formation of collective trust: external context, internal context, and task context. External context is comprised of assumptions, expectations, and patterns of coping that each individual contributes to a collective group. External context can condition the formation of collective trust as a result of individual attitudes, values, worldviews and background experiences. These characteristics can condition a group's capacity and disposition to trust. For example, if a group has diverse values, the emergence of trust will be negatively conditioned (Forsyth, Adams, & Hoy, 2011).

Internal context is another set of factors which refers to organizational conditions immediately affecting groups. Forsyth, Adams, and Hoy (2011) list the conditions which may potentially affect a group's capacity to trust another group or individual as an organization's structure, leadership, employee evaluation system, clarity of goals, history, and facilities. Also, research has found that an organization's required communication level, the organizational size, and organizational stability are three characteristics of the internal context that shape social exchanges (Forsyth, Adams, & Hoy, 2011). For example, as social change and volatility within the organization increases, the capacity for trust decreases.

Task context is an element that can condition collective trust differently than internal and external contexts. The task context refers to an organization's overall purpose and process by which it carries out its core function. For schools, teaching and learning are the core tasks. The end product of the organization determines if the task is complex or simple, thus shaping conditions that can enable individuals to work effectively. For example, if the process and task are simple, they can be easily standardized and controlled with prescriptive routines and regulations. In the case of schools, student learning is the goal, making the purpose and the process to achieve learning the task. Each individual student possesses various skills, prior knowledge, and motivation, making the tasks of schools more complex. As Forsyth, Adams, and Hoy (2011) claim, the goal of facilitating successful learning requires complex work by many interconnected individuals and groups.

Standardizing or measuring the success of complex tasks is challenging. In the case of schools, complexity is increased by the difficulty of measuring appropriately if schools are succeeding in their task (Forsyth, Adams, & Hoy, 2011). Ultimately, the complexity of tasks in organizations affects the social construction of collective trust.

Due to the complex task of facilitating learning and meeting the needs of students, task context becomes most influential in the social construction of collective student trust (Forsyth, Adams, & Hoy, 2011). That is, collective student trust of teachers is formed out of the social exchanges between students and teachers. The achievement of complex tasks may be affected positively or negatively based on the teacher behavior in the school. Because teacher behavior can be influenced by an optimistic school culture, academic optimism is a likely characteristic of the task context of schools. The level of

cooperation and enabling structures in place to achieve the task affect the culture of optimism in the school, which is likely to influence trustworthy behavior.

For collective student trust to form in a school, students need to observe their teachers behave in ways that are open, honest, benevolent, reliable, and competent (Forsyth, Adams, & Hoy, 2011). There is empirical evidence shows that academic optimism is directly related to school success, student achievement, and overall school effectiveness (Hoy et al., 2006a, 2006b; McGuigan & Hoy, 2006; smith & Hoy, 2007). An optimistic task context is defined by norms that promote the use of personal, social controls, such as persuasion, influence, and reciprocal cooperation to engage students in learning. In contrast, schools that have high degrees of formal controls such as bureaucracy, centralization, and formalization deter the emergence of trustworthy behaviors (Creed & Miles, 1996). In summary, positive and supportive teacher behavior and student-teacher interactions are more likely to occur in a school culture where academic optimism is high.

Academic optimism sets the stage for instructional practices that support students in achieving high academic expectations, that enable teachers to shift responsibility for learning to students, and that give teachers confidence to be innovative in the classroom (Hoy, Tarter, & Woolfolk Hoy, 2006). Academic optimism is a characteristic of the task context that supports positive social exchanges between students and teachers, increasing opportunities for student trust to grow. Therefore, it is likely that academic optimism will affect the social construction in the formation of collective trust of teachers. Thus, it is hypothesized that:

H: *Academic optimism is related to collective student trust of teachers in urban schools after controlling for differences in school composition.*

CHAPTER 4: METHOD

This study used an urban school district in a southwestern state to test the hypothesized relationship between academic optimism and collective student trust. Because urban schools can suffer from a lack of social resources (King & Bouchard, 2011; Noguera, 2008), it is important to explore the optimism-student trust relationship in school environments. Studying urban elementary and secondary schools in the same district has an added benefit of controlling for differences in how districts approach the design, implementation, and evaluation of reform. Schools in the same district operate under similar policies and objectives.

The school district used is located in a city with a population of approximately 950,000 residents. The district serves approximately 42,000 students across 88 sites. Demographically, approximately 31 percent of the students are African American, 29 percent are Caucasian, 25 percent are Hispanic, 8 percent are Native American, and 2 percent are Asian. Eighty three percent of the students qualified for the federal lunch subsidy. The district employs nearly 2400 teachers, with an average of 10 years of experience among the faculty. Approximately 25 percent of the teachers hold advanced degrees.

Like urban schools across the country, the district faces vast pressure to improve student achievement. Annual Yearly Progress (AYP) indicators suggest stable improvement from 2006 to 2010, but an insistent achievement gap with the state average. The AYP is scaled ranging from 0-1500 with 80 percent of a district's score based on state curricular tests, 10 percent on attendance rates, and 10 percent on graduation and college going rates. The district is implementing initiatives aimed at improving teacher

and leader effectiveness through performance evaluation frameworks and value-added achievement measures.

Data Source

Data came from the larger study by the Oklahoma Center for Education Policy on Urban School Capacity. This study used data collected in 2011 from teachers and students in 79 elementary and secondary schools. Thirty students were randomly sampled from the 5^{th}, 7^{th}, 9^{th}, and 11^{th} grades and assigned to one of two surveys. Student and teacher surveys were collected during the school day by designated school liaisons. Collective student trust is included in survey form A and self-regulated learning and school identification in form B. Surveys were separated to avoid potential tautology in responses to survey items. Usable responses were received from 2,557 students, with a 98 percent return rate**.** School achievement and demographic data was collected from the school district and state department of education.

Measures

Student trust was measured with the Student Trust in Teachers Scale (Adams, 2009). Similar to other trust measures, the student trust scale captures student shared perceptions of the openness, benevolence, competence, honesty, and reliability of teachers. The scale consists of thirteen questions with a 4 point Likert response set ranging from Strongly Disagree coded as 1 to Strongly Agree coded as 4. Sample items include: "teachers are always ready to help at this school," "teachers at this school really listen to students," and "teachers at this school are good at teaching." Reliability from field tests found strong internal item consistency with an alpha of .90. Validity and

reliability tests with data from this study showed good structural validity with factor loadings ranging from .58 to .75 and good reliability with an alpha of .92.

Academic Optimism was measured with the School Academic Optimism Scale (Hoy, Tarter, & Hoy, 2006). The academic optimism scale measures and combines the three school-level elements: academic emphasis, collective efficacy, and faculty trust in parents and students. The scale includes 30 total items: 8 items on academic emphasis, 12 items on collective efficacy, and 10 items on faculty trust. Responses to collective efficacy and faculty trust items consisted of a 6 point Likert scale ranging from Strongly Disagree coded as 1 to Strongly Agree coded as 6, and responses from the academic emphasis portion consisted of a 4 point Likert scale ranging from Rarely coded as 1 to Very Often coded as 4. Sample items from collective efficacy include: "teachers in this school are able to get through to the most difficult students," and "teachers in this school believe that every child can learn." Sample items from faculty trust include: "teachers in this school trust their students," and "teachers can count upon parental support." Sample items from academic emphasis include: "the school sets high standards for performance," and "academic achievement is recognized and acknowledged by the school." Findings by Hoy et al. (2006) support good reliability of the scale with strong internal item consistency as indicated by an alpha for academic emphasis (.94), collective efficacy (.94), and faculty trust (. 96).

Contextual variables were also included in the study. Prior academic performance was measured with the State Academic Performance Index (API). The index is a composite scale score founded on student achievement, attendance, and percentage of students taking state curricular tests. Ninety percent of the API score comes from student

scores on state curricular exams. Scores range from 0-1500. The percentage of students in a school qualifying for the federal lunch program was used as a proxy for school-level socioeconomic status. Percent non-minority was measured as the percentage of students in a school who identify as Caucasian. Dummy coding was used to measure the grade configuration of the schools. Elementary schools were coded as 1 and middle and high schools as 0.

Analytical Technique

Descriptive analysis was used to describe the sample and the level of academic optimism and collective student trust within the sample of schools. Correlation analyses were then conducted to explore the relationship between academic optimism and collective student trust, as well as the relationship between other school conditions (i.e. free/reduced lunch rate, prior achievement, minority rate, elementary school level) and collective student trust. Analyses were also conducted to observe the relationships of collective student trust to each unique element of academic optimism: academic emphasis, faculty trust, and collective efficacy. A hierarchical multiple regression technique was then used to test the relationship between academic optimism and collective student trust after accounting for variance explained by the other school factors.

Multiple regression examines the relationship between a single outcome measure and several predictor or independent variables (Jaccard, Guilamo-Ramos, Johansson, & Bouris, 2006). The correct use of the multiple regression model requires that critical assumptions be satisfied in order to apply the model and establish validity (Poole & O'Farrell, 1971). Inferences and generalizations about the theory are only valid if the

assumptions in an analysis have been tested and fulfilled. Three assumptions are reported for this study. It is assumed that the data are distributed normally; that there is an independence of observation; and that there is homogeneity of error so the residuals have a normal distribution. These assumptions for multivariate analysis were met (see appendix B).

Two post hoc analyses were also conducted to observe student trust at different grade levels and to observe the effect of academic optimism on student trust in secondary schools. A comparison of means by school level for collective student trust was conducted to gain an understanding of differences in student trust between elementary, middle, and high school levels. A multiple regression analysis using two regression models was used to measure the variance in student trust explained by academic optimism at the secondary school level, while controlling for school conditions.

CHAPTER 5: RESULTS

The theory of collective trust formation and evidence on academic optimism led to the hypothesis that a climate of optimism shapes student trust in teachers. This relationship was tested in 79 schools from one urban district. The results section reports findings from the descriptive, correlational, and regression analyses. The chapter concludes with findings from the post-hoc.

Descriptive Statistics

Descriptive statistics describe the compositional characteristics of urban schools in the sample (Table 1). The average free/reduced rate was 86%, with a range from a low of 16% to a high of 100%. Schools averaged a 33% non-minority student representation, with a range from 1% to 75% non-minority. These demographics reflect a high poverty, high minority urban school setting. Even with high average student poverty and minority status, the range shows there were schools with lower student poverty and higher non-minority composition. API is used to describe prior academic performance of the schools. The average API score was 903, with a range from 293 to 1460. The mean for student trust in the schools was 40.5, with a range on the Student Trust in Teachers scale from 32 to 47.6. Finally, schools had a mean of 40.2 on the School Academic Optimism Scale with a range from 30.7 to 51.4.

Table 1.

Descriptive School Data

Variable Name	Mean	SD	Minimum	Maximum
Free/Reduced Lunch Rate	86.03	22.8	16	100
Prior Academic Performance	903.2	295.6	293	1460
Percent Non-minority	32.7	18.9	1	75
Student Trust	40.47	3.8	32.05	47.63
Academic Optimism	40.2	4.37	30.73	51.46

Note. N = 79 Schools; Academic Performance Index (API) scores were used as the measure of prior academic performance.

Correlation Results

Correlations were tested to analyze bivariate relationships between the variables in this study. Specific interest was on the relationship between academic optimism, each dimension of academic optimism, student trust, and school conditions. Noteworthy results include a statistically significant relationship between academic optimism and collective student trust (r =.51; p<.01). Academic optimism explained 26% of the variance in student trust. Positive and significant correlations were also found between student trust and each separate element of academic optimism: faculty trust in students (r =.55; p<.01) explaining 30% of the variance in student trust, academic emphasis (r =.46; p<.01) explaining 21% of the variance, and collective efficacy (r =.38; p<.01) explaining 14% of the variance in student trust.

Other interesting findings from the correlation results show that trust was strongly related to the elementary schools (r =.65; p<.01), suggesting that students in elementary schools have higher trust than students in middle and high schools. Also, student trust

was significantly related to prior academic performance (r =.43; p<.01). Student trust had a positive but weaker relationship with the percent of non-minority students in the school (r =.25; p<.01); and contrary to popular assumptions, there was not a significant relationship between free/reduced lunch rate and student trust.

Table 2.

Correlations

Variable Name	1	2	3	4	5	6	7	8	9
1. Free/Reduced Lunch Rate	1								
2. Prior Academic Performance	-.559**	1							
3. Percent Non-minority	-.703**	.681**	1						
4. Student Trust	-.129	.439**	.250*	1					
5. Faculty Trust of Students	-.432**	.650**	.515**	.550**	1				
6. Academic Emphasis	-.331**	.494**	.407**	.462**	.636**	1			
7. Collective Efficacy	-.719**	.660**	.602**	.389**	.640**	.608**	1		
8. Academic Optimism	-.610**	.683**	.584**	.510**	.810**	.862**	.906**	1	
9. Elementary Level	.081	.300**	.128	.655**	.444**	.373**	.169	.337**	1

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

Multiple Regression Results

Two regression models were used to explain variance in student trust across schools in the sample. The first model included the school control variables: elementary school level, percent non-minority, and prior academic achievement. These variables were treated as controls because the bivariate correlation results showed a significant relationship with student trust. The second model included academic optimism with the school controls. The purpose of the second model was to test the unique effect of academic optimism on student trust after controlling for prior achievement, percent non-minority, and the elementary school level.

From model one (Table 3), 49% of the variance in student trust was explained by the combination of elementary school level, percent non-minority, and prior academic achievement. Of this amount of explained variance, elementary school level had the largest unique effect (β = .574, p<.01), explaining approximately 32% of the variance in student trust. Prior academic achievement was statistically significant (β = .265, p<.01), but had a smaller effect on student trust, explaining approximately 7% of the variance.

The second model included academic optimism with the school controls. When holding constant differences in school composition, the addition of academic optimism increased the amount of explained variance by 4%, from 49% to 53%. Of the variables included for the second model, academic optimism (β = .312, p<.01) and elementary school level (β = .528, p<.01) were the only significant predictors of student trust. Academic optimism explained uniquely approximately 10% of the variance, while elementary school level explained approximately 28% of the variance in student trust.

An R^2 in the final model of .53 indicates that additional school factors contribute to variation in student trust.

Table 3.

Multiple Regression Results for Student Trust Regressed on School Conditions and Academic Optimism

Variable Name		**Model 1 β**	**Model 2 β**
Prior Academic Performance		.265*	.117
Percent Non-minority		-.006	-.082
Elementary Level		.574**	.528**
Academic Optimism		--	.312**
	R^2	.485	.533
	ΔR^2	--	.048

Note. **$p < .01$, * $p < .05$
Parameter estimates are standardized regression coefficients

Post Hoc

The correlation and regression results presented interesting findings that called for additional analysis. Specifically, the relationship between trust and grade configuration was examined. The strong negative relationship between trust and grade configuration indicates that student trust is likely lower in middle and high schools compared to elementary schools. The strong effect of grade level could negatively bias the estimated relationship between academic optimism and student trust in the full model.

Two post hoc analyses were conducted to gain a better understanding of student trust at different school levels and to test the academic optimism and trust relationship in

secondary schools. First, a comparison of means by school level for collective student trust was conducted to gain an understanding of differences in student trust between elementary, middle, and high school levels. Second, a multiple regression analysis using two regression models was used to measure the variance in student trust explained by academic optimism at the secondary school level, while controlling for free/reduced rate and percent non-minority. The results follow.

Comparison of Means by School Level

Consistent with the correlation and regression results, comparison of means show that student trust decreases as school level increases (Table 4). Average student trust in elementary schools was 41.6. Average student trust in middle schools was 36.4, and in high schools 34.8. These mean differences were statistically significant with a large effect size by Cohen standards. Approximately 46% of the variance of student trust was explained by school level.

Table 4.

Post Hoc: Mean Differences in Student Trust of Teachers between Elementary Schools, Middle Schools, and High Schools

School Level	**Student Trust Mean**	**Standard Deviation**
Elementary School	41.62	3.20
Middle School	36.46	2.78
High School	34.84	2.81
Total	39.87	4.07

Regression Analysis

Two regression models were used to measure the variance in student trust at the secondary school level. Middle and high schools were combined to form a larger sample. Again, a hierarchical model was used with school controls of percent minority and percent free/reduced lunch rate entered in model one and academic optimism in model two. The second model tested the unique effect of academic optimism on student trust after controlling for school composition.

From model one (Table 5), 26% ($R^2 = .260$) of the variance in student trust in secondary schools was explained by the combination of percent non-minority and free/reduced lunch rate. Of this amount of explained variance, free/reduced lunch rate had the largest unique effect ($\beta = -.713$, $p<.01$), explaining approximately 51% of the variance in student trust. This shows that socioeconomic status had a larger effect on student trust over minority status in middle and high schools.

When adding academic optimism to the model, the R^2 changed from 26% to 38%. This was an increase of 12% from the first model. Academic optimism ($\beta = .614$, $p<.01$) was the strongest predictor of student trust in secondary schools, explaining 38% of the variance in student trust. Also statistically significant was percent non-minority ($\beta=-.568$, $p<.01$) which accounted for 32% of the variance of student trust.

Table 5.

Post Hoc: Regression Results for the Secondary School Sample

Variable Name		**Model 1 β**	**Model 2 β**
Percent Non-minority		-.614*	-.568*
Free/Reduced Lunch Rate		.713*	-.183
Academic Optimism		--	.614*
	R^2	.260	.388
	ΔR^2	--	.128

Note. * $p < .05$ Parameter estimates are standardized regression coefficients

In summary, the hypothesis was confirmed as academic optimism was found to be related to student trust even after controlling for differences in school composition. Also of interest was a comparison of means of student trust at the elementary, middle, and high school levels indicating that student trust decreases as school level increases. This is consistent with what is known about the relational context of elementary schools compared to secondary schools. As students progress through school, they become more independent and responsible for learning, relying less on teachers and their relational attachments. That said, relational context still matters for adolescents. Yet, in this study elementary schools showed more student trust of teachers than middle schools, and middle schools showed more student trust of teachers than high schools.

CHAPTER 6: DISCUSSION

Trust has emerged from extant research as a social condition that is necessary for school improvement, with combined and distinctive effects on school performance (Forsyth, Adams, & Hoy, 2011). For example, faculty trust in colleagues supports collaboration, shared instructional influence, and professional autonomy among teachers (Tschannen-Moran, 2001, 2004, 2009); whereas faculty trust in clients predicts student achievement (Goddard, Salloum, & Berebitsky, 2009; Goddard, Tschannen-Moran, & Hoy, 2001). Although findings such as these have emerged on the role of trust in effective schooling, relatively few studies have been conducted on student trust and its formation.

Studying the formation of collective student trust gives an understanding of behaviors and school characteristics that facilitate productive student-teacher relationships. This study adds to Adams' (2010) work on predictors of collective student trust by identifying academic optimism as supporting teacher-student interactions that are trust inducing. Further, the study's findings highlight normative conditions in urban schools that give life to healthy student-teacher relationships. Faculty trust in students, collective efficacy, and academic emphasis combine to form a school climate where students perceive the actions of teachers as trustworthy. This discussion explains the primary findings by revisiting the theory of collective trust and using it to explain the likely process by which academic optimism in urban schools supports collective student trust in teachers. The chapter concludes with implications for school practitioners searching for strategies to enhance teaching and learning.

Academic Optimism and Collective Student Trust

Results support the hypothesis that academic optimism is related to student trust, and that the effect of optimism holds when controlling for differences in school composition. The optimism-trust relationship was found in the full sample and in the smaller sample of secondary schools. Norms that form an optimistic climate in schools set the stage for trusting relationships between students and teachers. A normative environment of faculty trust, collective efficacy, and academic emphasis appear essential for urban schools generally, but even more critical for urban secondary schools where the optimism-trust relationship was stronger.

In schools, collective trust is found on the premise that repeated social interactions among individuals and groups form collective perceptions about the trustworthiness of others. Shared trust beliefs determine a group's willingness to be vulnerable to another group or individual based on the confidence that the trustee is competent, reliable, open, honest, and benevolent. For students, this means that their trust emerges through repeated social exchanges among teachers, students, and instructional materials (Forsyth, Adams, & Hoy, 2011). As explained through collective trust theory, intra-role group and inter-role group exchanges lead to social constructions about another individual or group. Social construction is affected by the external context, internal context, and most importantly task context. Findings from this study are situated in these three school contexts to explain how academic optimism shapes a relational supportive instructional climate.

External Context

External context includes the social environment surrounding schools that influence the values, beliefs, disposition, and traits of individuals (Forsyth, Adams, & Hoy, 2011). In organizations, individuals do not check their dispositions and assumptions at the door. Rather, idiosyncratic factors enter organizations by way of individuals who comprise part of the social system (Schein, 2004). That is, people bring a variety of attitudes, values, worldviews and background experiences that shape group beliefs. In schools, individual beliefs and values spread through the numerous repeated social interactions that occur in the educational process. External conditions shaping individual dispositions can condition the formation of collective trust by influencing a group's capacity and disposition to trust (Forsyth, Adams, & Hoy, 2011). Two external conditions frequently found in school trust literature include characteristics of the socio-economic status of school members. As demonstrated in this study and existing research, external conditions influence trust to the degree by which such conditions affect regularities in the internal and task contexts (Adams, 2008; Forsyth, Adams, & Hoy, 2011).

If a group has diverse values, research shows that the emergence of trust can be negatively conditioned by different expectations and beliefs about responsibilities of school role groups (Forsyth, Adams, & Hoy, 2011). In schools, diverse views of teaching and learning becomes a limiting factor for its members to reach a shared belief on role specific expectations necessary for the formation of trust. Without a shared set of role expectations to measure the trustworthiness of an individual or group against, collective beliefs are difficult to obtain (Bryk & Schneider, 2002). Young and Parker (1999) claim

that without collective beliefs, individual beliefs emerge as the leading criteria for judging the trustworthiness of other groups or individuals. Yet Forsyth, Adams, and Hoy (2011) argue that shared group beliefs are stronger determinants of collective trust than are individual beliefs. For example, a collective expectation will not exist within a group if specific norms have not been established, which neither creates nor disrupts collective trust.

Collective trust of a group is not affected until an expectation and obligation is defined as the social norm. Values and beliefs conditioned by an external context can shape socially defined expectations for acceptable and responsible behavior, but it is also the case with internal school conditions as it can reshape beliefs and values of individuals who enter the school (Schein, 2004). Once social norms have been established, behaviors inconsistent with those norms will likely limit collective trust. Thus, the external context shapes trust by way of internal school norms.

Research on factors of external conditions and trust is somewhat limited. Most studies that include external conditions mainly use the effect of minority and the socioeconomic status. For example, a study on interpersonal trust by Bryk and Schneider (2002) revealed that ethnic composition of the school did influence teacher trust formation, yet the socioeconomic status of the school did not. Goddard and Tschannen-Moran (2001) found that faculty trust in clients (students and parents) was strongly related to socioeconomic status, while percent minority was only slightly associated. In a latter study, socioeconomic and minority status were found to have a significant effect on faculty trust in clients (Goddard, Salloum, & Berebitsky, 2006). Adams, Forsyth, and Mitchell (2009) found that socioeconomic status of students was a significant predictor of

collective parent trust. On the other hand, faculty trust in colleagues and principals were not found to be significantly affected by socioeconomic or minority status of schools (Smith, Hoy, & Sweetland, 2001; Hoy, Smith, & Sweetland, 2002). Instead, teacher perceptions of the school climate were a stronger factor of collective trust than demographic measures.

Findings from existing school trust research paints a picture of the external context effect that is consistent with evidence from this study. First, it is instructive to note economic status and minority composition were only significant factors when parents and students were referents of trust. Faculty trust in colleagues and the principal were not influenced as much by demographic and economic conditions. Given what we know about trust formation, the above findings are not surprising. The external environment of children and families does not directly affect the interactions of teachers and principals (Adams, 2008), but such conditions would seem to influence student trust if they constrain student-teacher interactions. The important point is the effect on student-teacher interactions. Positive interactions, like ones supported by academic optimism for example, can offset any harmful external constraints.

Correlation results from this study showed that student trust was not found to have a statistically significant relationship with the percent of students in a school who qualify for the federal free/reduced lunch subsidy, but there was a small, statistically significant relationship with the minority composition of the school. The strength of the relationship between minority status and student trust was smaller than the relationship between minority status and faculty trust in students. Results from both regression models showed that minority status did not have a significant unique effect on student

trust when included with other factors (prior academic performance, elementary level, and academic optimism), indicating that collective student trust in this sample of urban schools was not strongly influenced by the external factors of economic and minority composition.

The post hoc regression results yield interesting evidence on how the external context can influence collective trust. Model one found a strong effect of minority composition and free/reduced lunch rate on student trust. The higher the minority and free/reduced lunch representation in the secondary schools the lower the collective student trust. The free/reduced lunch effect, however, withered with academic optimism in the model. The effect of minority composition dropped, but it remained statistically significant and strong. The drop in explained variance between model one and two indicates the optimism shares variance in student trust with school demographic conditions, suggesting that academic optimism may function as a mediator in the relationship between school demographic compositions and student trust. A plausible explanation for lower student trust in secondary schools that serve high minority and poverty students may be a lack of academic optimism. Public schools cannot change their demographic characteristics, but they can enhance interactions that give life to student trust.

Although external conditions can negatively influence the social norms needed for collective trust to emerge, trust is more likely to emerge when school processes unite and coalesce school group members (Forsyth, Adams, & Hoy, 2011). Before social norms from expectations and responsibilities can be collectively defined and established in schools, groups must become cohesive. External context of schools can also limit the

cohesion among school groups. Yet, if the internal conditions and school processes promote cooperative interactions among the interdependent groups, collective trust will be more likely to exist.

Internal Context

Internal school context is the set of factors which refers to organizational conditions immediately affecting the task context where teaching and learning unfold. These conditions include a variety of factors such as school size, social norms, leadership and management styles, coordinating structures, and instructional resources (Forsyth, Adams, & Hoy, 2011). Internal school context shapes the culture and environment of the school through structures, processes, and conditions that define how teaching and learning are brought to life in classrooms. Leadership within the school is responsible for refining the organizational culture through direct interactions with role group members (Northouse, 2001) and by planning for structural components to meet organizational goals (Mintzberg, 1989). Bryk and Schneider (2002), Kochanek (2005), and Tschannen-Moran (2004) all found that leadership is a critical internal factor for trust formation, but leadership by itself does not create conditions that support or hinder student trust. Other school characteristics and conditions matter as well.

The two conditions of internal context in this study included prior school achievement and grade configuration. Indeed, these conditions do not directly reflect structures, processes, or practices but they are capable of differentiating internal school environments. Schools with strong prior achievement look, feel, and act differently than schools with poor achievement. Similarly, elementary schools look, feel, and act differently than middle and high schools. Prior research also shows that student-teacher

interactions in high achieving schools differ from interactions in lower performing schools (Bryk, et al., 2010).

Results of this study indicate that grade configuration and prior achievement did matter for student trust. Student trust was stronger in elementary schools than middle and high schools. This finding is not surprising. Elementary schools in general are configured to support stronger relational connections between students and teachers. Some schools have self-contained classrooms where students have the same teacher for an entire year. Elementary schools also tend to loop-teachers to maintain student-teacher continuity and connections. Where students do travel to different classrooms, the number of teachers students interact with on a regular basis remains small relative to secondary schools. Developmentally, elementary students are still seeking positive attachments with adults, while peer groups become more impressionable and influential for adolescents. Elementary students also have a stronger propensity to trust adults than adolescents. Although the reason for differences in student trust between elementary and secondary schools is not known, it is clear that elementary students were more likely to perceive teachers as trustworthy.

Prior school achievement also had a moderate relationship with student trust prior to the inclusion of academic optimism. In a way, this relationship is to be expected given that student trust has a relationship to student achievement (Adams, 2014). It is interesting to think about the reason why prior achievement was related to student trust. Collective trust theory would seem to suggest that past achievement may ease cooperation among students and teachers. Poor prior achievement in the face of strong external pressure to improve tends to produce rigid responses that can undermine

cooperative student-teacher interactions (Daly, 2009), but successful performance is likely to encourage teachers to use instructional strategies that meet student learning needs (Adams, Forsyth, Ware, & Miskell, in press). Finding that the prior achievement effect diminished with the inclusion of academic optimism lends moderate support for this argument. Optimism reflects a relationally supportive teaching and learning context, and when such an environment exits trust tends to be higher irrespective of past school achievement. Simply put, the effect of prior achievement needs to be flushed out with more evidence. Specifically, what is it about past achievement that may condition a school for better student trust. Conversely, what is it about poor achievement that may fuel less trust?

Task Context

As suggested by collective trust theory, the external, internal, and task contexts interact to influence the social construction of trust. At least for students, the task context seems to be the school feature that has the most potential to shape student beliefs and behaviors. A task context characterized by academic optimism is one that provides the norms needed for students to perceive teachers as trustworthy.

In a general sense, the task context in schools can be defined by similar characteristics. The core work of schools, teaching and learning, is complex, not easily standardized, and adaptable based on individual student differences (Forsyth, Adams, & Hoy, 2011). But not all task contexts in schools are the same. Schools use different structures, processes, and practices to motivate and engage students in experiences that shape their knowledge, competencies, and mindsets. Academic optimism is one distinguishing feature of the task environment. Optimism differs across schools, and as

results of this study show differences in academic optimism have consequences for student trust. Student trust was higher in schools where teacher press for high academic achievement is evident, where faculty perceives students as responsible and trustworthy, and where teachers are confident that the faculty as a group can produce strong learning opportunities.

General evidence on the formation of trust provides insight as to how and why academic optimism is related to student trust. Trust is associated with behaviors that are authentic, open, and cooperative. For students, this implies that teachers who act in ways that are perceived as benevolent, competent, open, honest, and reliable will build greater levels of collective student trust. Students will be more inclined to risk vulnerability if they perceive teachers as physically and emotionally present. Likewise**,** interactions between students and teachers that are cooperative are likely to produce positive and generative beliefs**.** Teacher actions are compelling determinants of student trust. With teacher behaviors holding the strongest significance in the formation of student trust, factors that influence supportive teaching practices and positive student-teacher interactions set the stage for a more cooperative and healthy learning climate.

Academic optimism is a norm that forms from teacher values, beliefs, and perceptions. It is not an indicator of teacher behavior per say, but it does signal a climate in which teachers can use softer, social controls to engage students in learning activities. Teachers are responsible for controlling student behavior, and in the absence of optimism they are likely to turn to impersonal, formal controls that students may perceive negatively. Optimism establishes a climate where relationships, cooperation, persuasion, and shared influence pervade teacher-student interactions. These conditions are sources

of trust and risk taking. That is, students are more likely to risk vulnerability when they are confident teachers will treat them fairly and with respect. Teachers, in turn, are more likely to create relational supportive environments when students display a willingness and eagerness to engage in academic tasks and to take their learning seriously.

From the evidence on the influence of behaviors, cognitive beliefs, and affective states for trust, academic optimism emerges as an apparent school condition that creates opportunities for student trust to form. Made up of academic emphasis, collective efficacy, and faculty trust, the characteristics combine to form a positive view of teaching and learning in schools (Hoy et al., 2006b). Each aspect of optimism influences teacher behavior collectively. The behavior of teachers fluctuates as academic optimism changes. Academic optimism develops positive teacher behaviors that aid in achieving complex task context as well as forming internal context that is supportive of teachers and enables teachers' expertise. As a result, collective teacher behavior influenced by optimism likely enhances opportunities for a climate of collective trust, subsequently changing student attitudes and actions. Academic optimism promotes a cooperative climate, and as seen in the correlation results it is significantly related to student trust. Academic optimism also explains a significant amount of variance in student trust in the regression results.

Also of interest is the relationship between academic optimism and student trust while controlling for other school factors (Free/reduced rate, prior academic performance, percent non-minority). As mentioned earlier, a significant relationship between academic optimism and collective student trust was observed. Positive and significant correlations were also found between student trust and each separate element of academic optimism:

academic emphasis, faculty trust, and collective efficacy. All three of these elements of optimism matter and have a relationship with trust. The elements combined, academic optimism is likely to influence teacher behaviors that contribute to a positive environment. Thus, academic optimism promotes achievement of complex tasks and affects internal context that is supportive of teaching and learning. The task and internal contexts influence the social construction which shapes social exchanges between students and teachers. From an optimistic social construction, students will observe teacher behavior and perceive them as acting in ways that are open, honest, benevolent, reliable, and competent. Students' collective comparison between expected and observed behaviors will be assessed in terms of the trust facets, which will yield high collective student trust.

Implications for Practice

Evidence that confirmed the hypothesized relationship between academic optimism and collective student trust in urban schools has implications for school leaders aiming to improve learning opportunities. Three implications standout as factors that make the difference between learning environments that support the innate capacity of students to thrive and conditions that fail to maximize student potential.

First, student trust is a controllable school norm. Results of this study show that schools have differential effects on healthy student-teacher relationships. Further, healthy student-teacher relationships are not predetermined by external conditions that schools lack influence over. Schools are not helpless in how they respond to changing policy objectives, external pressures, new reforms, and student, family, and community needs. Responses that build a culture of academic optimism have potential to create the

kind of relational support that encourages students to take risks in academic tasks and enrichment opportunities. Without risk taking, students likely become unmotivated and disengaged in the learning process. School leaders need to invest in building a culture of academic optimism for its effect on student trust in teachers.

The second implication relates to the optimism-student trust relationship. Teacher perceptions and expectations of students have consequences for teacher behaviors and instructional practices that foster student trust. Optimism is a norm partially shaped by teacher views and beliefs about student attitudes, mindsets, and behavior. How is optimism developed? Although this study did not flesh out the formation process, it is conjectured that the starting place for academic optimism resides in teacher beliefs in the ability of the faculty to make learning happen each day and in each classroom. High expectations for students can enable the type of student-teacher interactions that elicit trust beliefs.

Finally, it would serve school leaders well to pay attention to the social organization of schools. Social organization refers to the norms and patterns of interaction and behaviors that coordinate the work of schools (Forsyth, Adams, & Hoy, 2011). From the collective trust theory, social construction is established from social exchanges and comparisons between expected and observed behavior, and is influenced by external factors, internal factors, and complex tasks. An optimistic culture influences the internal conditions and assists with complex tasks like teaching and learning. The three collective properties of academic optimism are similar and have a compelling and positive effect on school outcomes (Forsyth, Adams, & Hoy, 2011). Findings from this study suggest that the external factors such as economic and minority status are mediated

by the internal and task context when optimism is present. That is, urban schools should not be limited to student trust as long as academic optimism is established. The importance of academic optimism emerges as an implication for school leaders to consider.

Implications for Research

This research has several limitations that can be addressed with further studies. First, the sample used in this study is not representative of suburban or rural schools. Thus, findings from the study are not generalizable beyond the context of schools within this urban district or to urban districts with similar characteristics. It is critical for future research to test the optimism-student trust relationship across a more representative cross-section of schools. The nature or strength of the relationship may be differentially affected by school and district context.

Second, the study was limited by a small number of high schools. This is a problem of most educational research. There is limited evidence of how different variables interact to affect the attitudes, behavior, and performance of high school students. Although limited by a small sample, results provided tentative support for optimism-student trust connection in high schools. Future research can explore this relationship with a larger sample of high schools.

Finally, more research to find descriptive information on specific trust producing processes and practices would be beneficial to school leaders. This study tested the relationship between academic optimism and student trust, but did not describe specific practices or behaviors that lead to an optimistic climate or to greater student trust. The survey data provides limited insight into how and why some external factors function to

decrease academic optimism. Individual teacher interviews could be used to gain additional insight into these relationships. Gaining further insight about why and how economic and minority status is related to academic optimism lends promise in the social construction of collective trust.

Evidence found on school characteristics that influence student trust could provide important implications for school leaders and policy makers who are given the charge of school reform.

Summary

This study adds to the literature on collective trust by offering a different concept through which to understand the formation of student trust: the concept of academic optimism. Findings from the study confirmed the hypothesis. Academic optimism had a positive and significant relationship with collective student trust. In the student-teacher relationship, the conditions of trust emerge from the necessary interdependence, vulnerability, and risk. Collective trust is found on the premise that repeated social interactions among individuals and groups forms collective perceptions about the trustworthiness of others. Shared trust belief determine a group's willingness to be vulnerable to another group or individual based on the confidence that the trustee is competent, reliable, open, honest, and benevolent. From social norms and expectations established in the school, collective student trust is formed from the student group's willingness to be vulnerable to teachers and discernments made on teacher behavior. For students, this means that their trust emerges through repeated social exchanges among teachers, students, and instructional materials (Forsyth, Adams, & Hoy, 2011). It could be argued that the relationship between academic optimism and collective student trust of

teachers is reciprocal. Meaning, collective student trust of teachers could be leading to a more optimistic environment. Yet this argument could be addressed with further research.

As explained through collective trust theory (Forsyth, Adams, & Hoy, 2011), intra-role group and inter-role group exchanges lead to social constructions about another individual or group. Social construction is affected by the external context, internal context, and task context. These contexts can be mediated by social norms that form an optimistic climate in schools that set the stage for trusting relationships between students and teachers. The three elements of academic optimism: faculty trust, academic emphasis, and teacher efficacy combine and are related to teacher behavior, social exchanges, and interactions that create the social norms and expectations needed for collective student trust to exist.

The implications of results of this study for research and practice are best summed up by Coleman (1987) and Wilson (1987) who claim that student-teacher relational support is essential in urban contexts where poverty and other environmental risks can lead to tenuous social networks and limited connections to adults. Student trust enables schools to satisfy a psychological need that may not be nurtured by the external environment. Academic optimism is a means to a supportive learning environment for students.

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APPENDIX A: IRB LETTER OF REVIEW OUTCOME



Institutional Review Board for the Protection of Human Subjects

Human Research Determination Review Outcome

Date: September 25, 2014

Principal Investigator: Jay Michael Ensley

Study Title: Academic Optimism and Collective Trust in Urban Schools

Review Date: 9/25/2014

I have reviewed your submission of the Human Research Determination worksheet for the above-referenced study. I have determined this research does not meet the criteria for human subject's research. The OU PI will not intervene or interact with living individuals or collect individually identifiable, private information. The secondary data to be used are de-identified. Therefore, IRB approval is not necessary so you may proceed with your project.

If you have questions about this notification or using iRIS, contact the HRPP office at (405) 325-8110 or irb@ou.edu. Thank you.

Cordially,

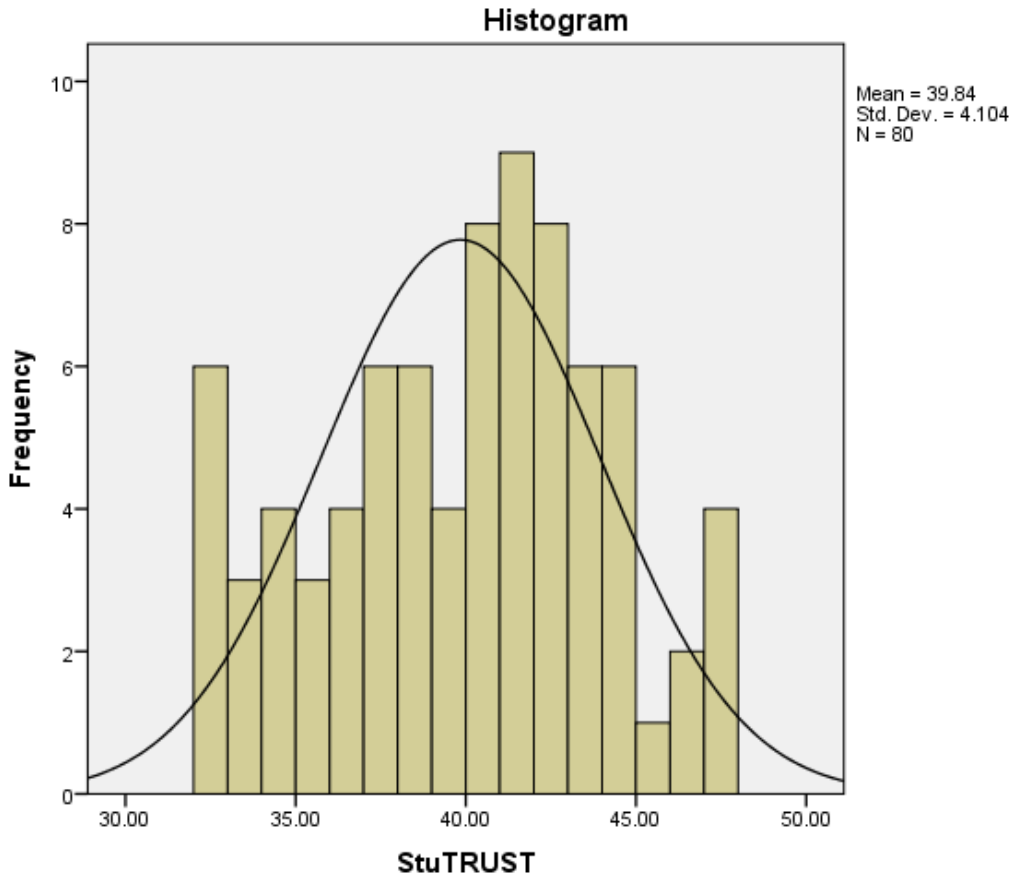
Fred Beard, Ph.D.
Vice Chair, Institutional Review Board

APPENDIX B: ASSUMPTIONS

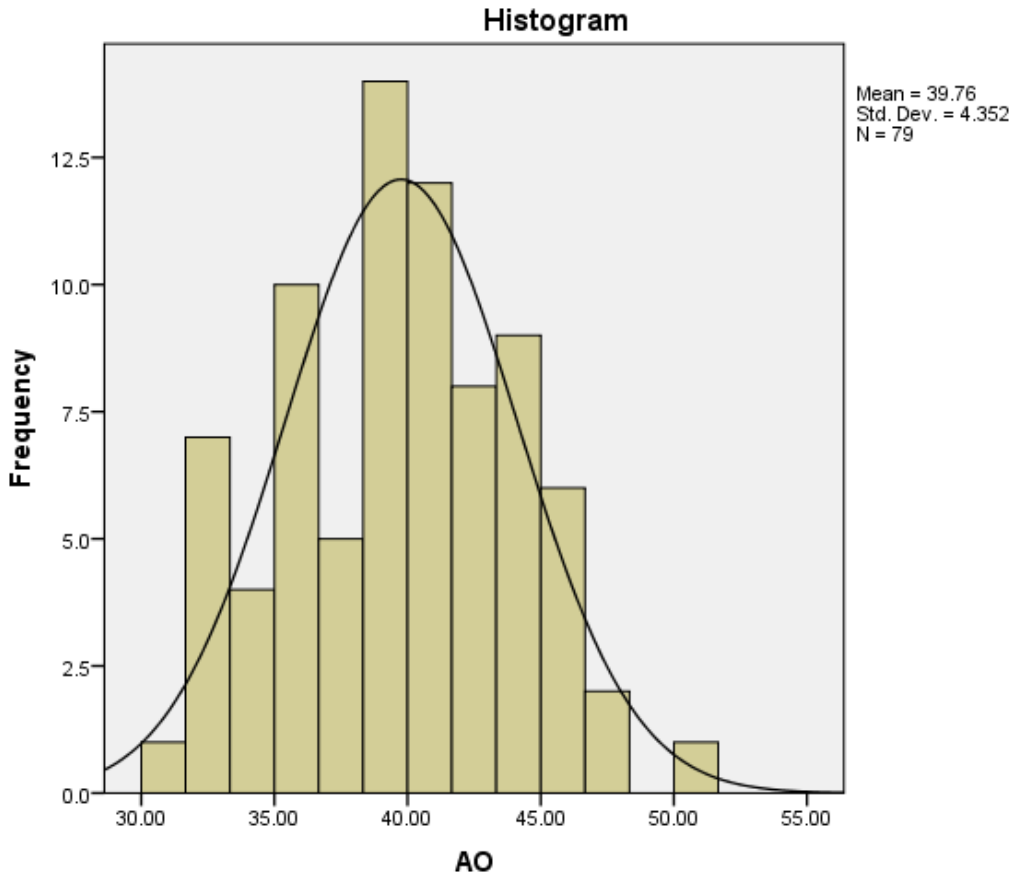
Normality Assumption: Descriptive Statistics, Skewness, and Kurtosis

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
FRLunch	79	16.00	100.00	85.3544	22.65915	-1.712	.271	1.964	.535
White	79	1.00	75.00	32.5570	18.51939	.339	.271	-.670	.535
StuTRUST	79	32.05	47.63	39.9136	4.07802	-.235	.271	-.680	.535
AOPT	79	90.58	152.17	116.9974	13.31073	.207	.274	-.465	.541
API2010	79	293.00	1460.00	893.8228	300.16951	-.116	.271	-.942	.535

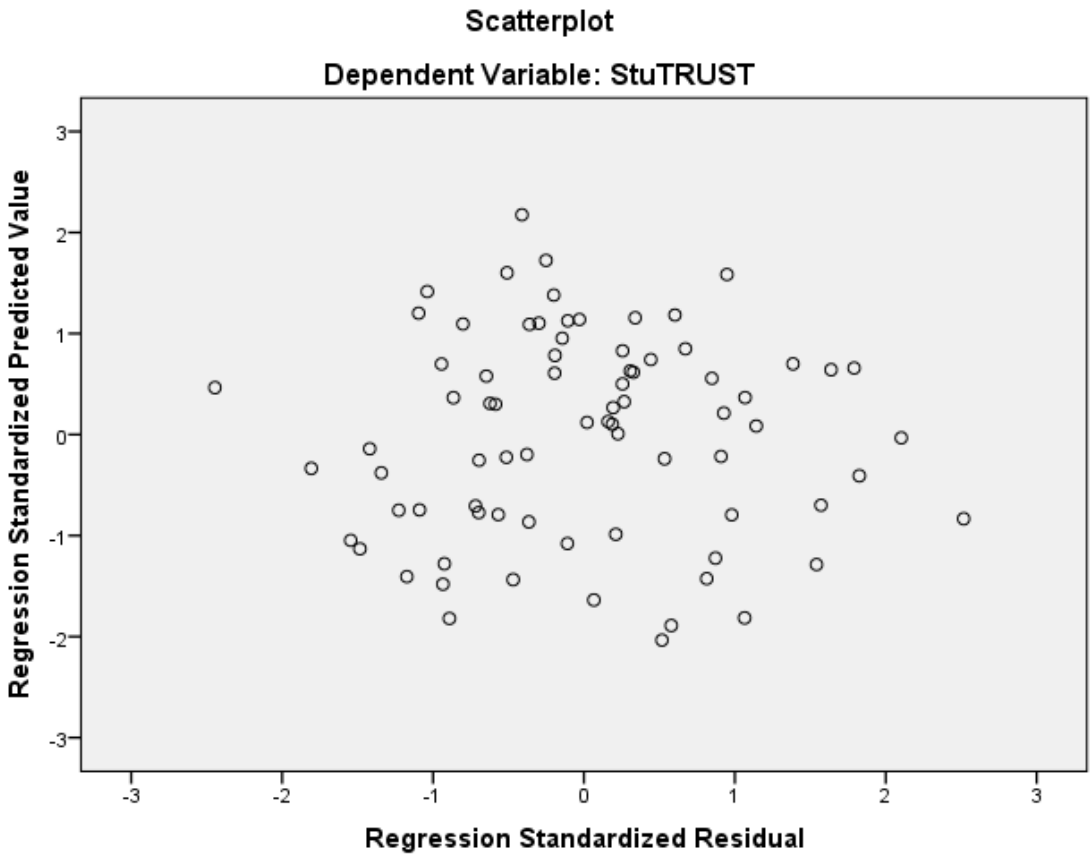
Distribution of Student Trust



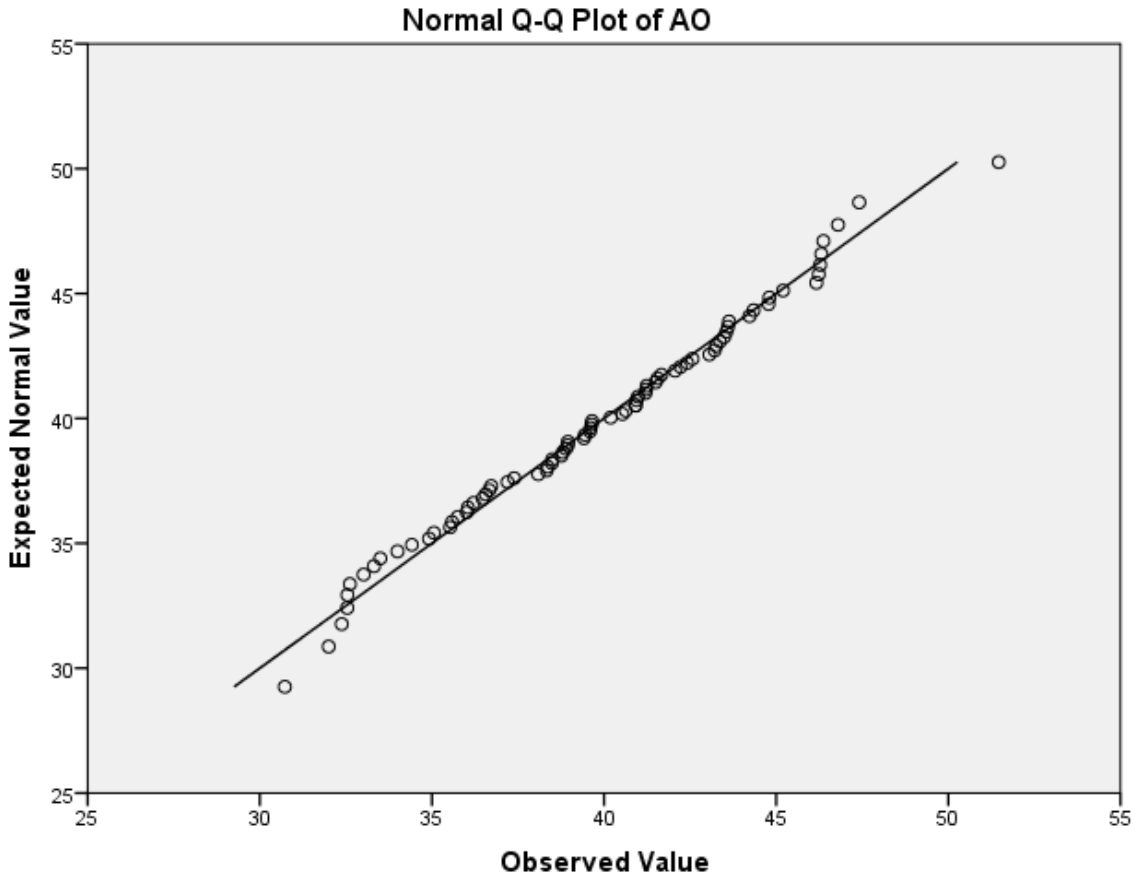
Distribution of Academic Optimism



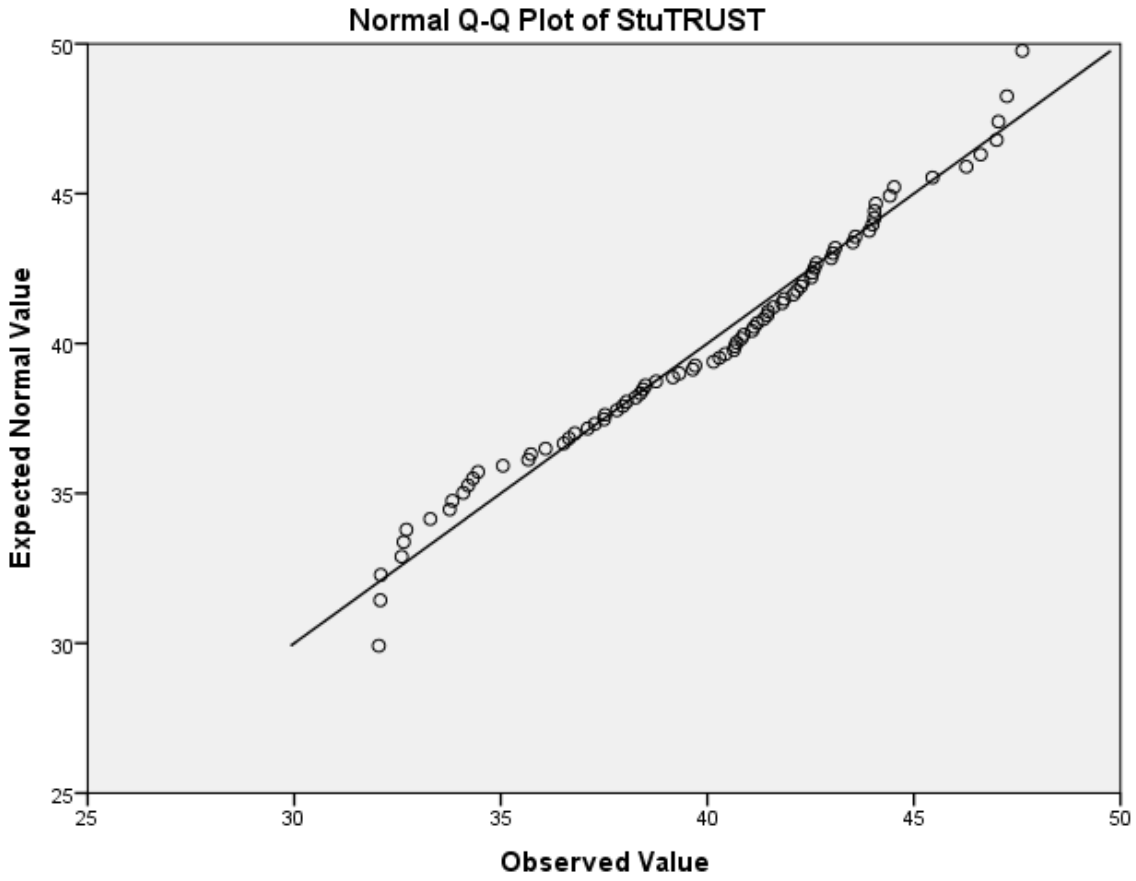
Homogeneity of Error Assumption



Homogeneity of variance for Academic Optimism



Homogeneity of Variance for Collective Student Trust



APPENDIX C: INSTRUMENTS

School Academic Optimism Scale

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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Student Trust of Faculty Scale

STF Scale

Directions: Please indicate how much you agree or disagree with each of the following statements. Please choose the answer that is closest to how you feel or what you think by filling in one circled number in each row. Please answer all items, even if you are not sure.	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Teachers are always ready to help at this school.	1	2	3	4
2. Teachers at this school are easy to talk to.	1	2	3	4
3. Students are well cared for at this school.	1	2	3	4
4. Teachers at this school always do what they are supposed to.	1	2	3	4
5. Teachers at this school really listen to students.	1	2	3	4
6. Teachers at this school are always honest with me.	1	2	3	4
7. Teachers at this school do a terrific job.	1	2	3	4
8. Teachers at this school are good at teaching.	1	2	3	4
9. Teachers at this school have high expectations for all students.	1	2	3	4
10. Teachers at this school DO NOT care about students.	1	2	3	4
11. Students at this school can believe what teachers tell them.	1	2	3	4
12. Students learn a lot from teachers at this school.	1	2	3	4
13. Students at this school can depend on teachers for help.	1	2	3	4

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