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Connecting School Climate and Trust: A Content Analysis of Elements of Trust in Student and Staff School Climate Surveys

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ABSTRACT

This study aims to make a concrete connection between trust in schools and school climate. Research indicates that both trust and school climate can positively impact school experiences and performance for teachers and students, but no formal connection has been made between these two elements of schools. In order to answer this study's research questions of "What differences in frequency and context of trust dimensions exist between student surveys and teacher surveys?" and "How are survey items related to trust dispersed across school climate domains?", a directed qualitative content analysis was performed. School climate surveys administered to students and teachers were sampled and analyzed to identify the presence of words and phrases used to define or indicate trust. Findings indicate that the sampled surveys included both deductive and inductive indicators that trust is measured in part through school climate surveys. However, not all facets of trust are equally present across or within student and teacher school climate surveys. This indicates that while there does appear to be a connection between school climate and trust, school climate surveys as they exist currently are not an effective measure of trust in schools.

Keywords: School climate, trust, student and teacher surveys, directed qualitative content analysis

CHAPTER 1

INTRODUCTION

Trust, or a lack of it, becomes most clear when instability arises in a society (Pelmaekers, Jacobs & Rollo, 2014). Given the constant media coverage of domestic and global upheaval across nearly all social, political, and economic sectors during the twenty first century, there should be little surprise that there is growing distrust between individuals and the institutions they rely on as part of modern life, including schools (Bates, 2010; Edelman, 2021; Pelmaekers et al., 2014). With each new political cycle, education policies are reviewed and revised to fit the incoming leader's vision of education, meaning that few educational reforms have lifespans greater than a few years yet promise to be the solution to decades of perceived shortcomings of schooling in the United States (Tyack & Cuban, 1995). Ever-changing policies and sanctions coupled with ever-present media criticism of schools diminish trust by signaling that professional educators must be unable to meet the demands of their profession and therefore must be managed and assessed by outside organizations (Bates, 2010; Schmidt, 2010). Catering to the performative standards of an external regulator detracts from educators' abilities to care for and meet the needs of their specific clients, sowing distrust amongst individual students and families beyond the general lack of trust prevalent in society (Bates, 2010). It comes as no surprise that this toxic mix of institutional, professional, and personal distrust of schools has significant impact not just on schools as a social system, but within schools as well (Bates, 2010; Daly, 2009).

The nuances of personal and organizational trust levels can easily become a make-or-break measure for school functioning and improvement. For example, when school sanctions are perceived as threats, trust was the only factor Daly (2009) found to reduce threat-rigid responses by teachers and administrators. This indicates that teachers in trusting environments are more able to be innovative and flexible in their response to reforms or outside directives, even when pressured to produce specific school improvements (Daly, 2009, Tschannen-Moran, 2009). Motivating the degree of investment necessary for school improvements to be initiated and adhered to is no simple task, and successful school reforms rely heavily upon social trust between stakeholders like teachers, students, and administrators (Bryk & Schneider, 2003; Payne, 2008; Seashore Louis, 2007). Relational trust between students and the adults who serve them in schools is a key component for a positive school environment, which can have significant impact on overall student performance (Darling-Hammond & Cook-Harvey, 2018). A positive school climate can support school success by compensating for low socio-economic status in student achievement, positively impacting student behavior, and increasing broader social trust levels in adolescents (Berkowitz, Moore, Astor, & Benbenishty, 2017; Flanagan & Stout, 2010; Thapa, Cohen, Guffey, & Higgins D'Alessandro, 2013; Wang & Degol, 2016).

Problem Statement and Rationale

The global COVID-19 pandemic has created turmoil in nearly every aspect of life and society. The drastic changes in lifestyle experienced across the world have highlighted a number of social realities that were previously present but not often at the forefront of conversation. Chief among these topics receiving newfound attention is the role and reality of modern schooling. Shifts to at-home learning challenged not only the academic responsibilities of

students, families, and educators, but also drew attention to the immense impact schools have on the social and emotional health and development of young people. As districts across the world have tried various models, with varying success, to return students and teachers to in-person learning, it has become even more apparent just how important interpersonal skills are in educating children. These are also the skills that aren't tested on the standardized assessments so readily used to determine the performance, and therefore value, of modern schools. Educators' fears about the repercussions of skipped tests and lower scores are real, but even more pressing are concerns about the social development of the students those same teachers serve. It is necessary now, more than ever, to broaden political and social definitions of "successful" schools beyond standardized academic assessments to include the environments and relationships that support content learning.

Truly successful schools must be measured more wholistically to better represent the range of services and experiences students access through educational institutions. While the pandemic has brought the expanded services schools and teachers provide to the consciousness of a broader audience, academics and even politicians have been advocating for more nuanced measures of school performance since well before the spread of COVID-19. School climate, a broad term that addresses experiences and quality of life within schools (National Center on Safe and Supportive Learning Environments [NCSSLE], 2021b; National School Climate Center [NSCC], 2021), has been studied for over 100 years (Cohen, 2014; Cohen, McCabe, Michelli, & Pickeral, 2009; Thapa et al., 2013; Wang & Degol, 2016) and was explicitly included as a part of the federal Every Student Succeeds Act in 2015. While school climate does include academics, it moves beyond learning to incorporate social, emotional, and physical aspects of schools as key

parts of student and teacher success. After over a year of significant disruption to educational experiences, coupled with shared and individual traumas brought on by the pandemic, a positive school climate that is welcoming and supportive is crucial to successfully reintegrating students into classrooms and schools.

A safe and positive return to classrooms relies on more than just a friendly face hidden behind a mask; it requires a new kind of trust between families, teachers, and school systems. It comes as no surprise that overall levels of trust in society are diminishing (Edelman, 2021) given the heightened social, political, and economic instability of the past couple years. The world has faced a global pandemic and tumultuous elections, fake news, terrorism, tense international relations, and economic uncertainty, all while working and learning in varying degrees of isolation. All people have been asked to put trust in public figures and personal friends in new ways as we try to keep ourselves and our communities safe. Nowhere is this more clear than the decisions made by parents, teachers, and school leaders trying to simultaneously keep students safe while also returning them to some semblance of normalcy. Students, teachers, administrators, and families are experiencing new levels of stress and physical and psychological vulnerability that make returning to school more difficult for individuals and whole communities. Without a sense of trust in the ability of a school and its members to be a safe place, socially, emotionally, physically, and academically, it will be impossible for schools to fully resume operation.

There is some recognition of a connection between school climate and trust in educational research; however, there has been little exploration of the specifics of this connection in research or practice to date. This research seeks to address this gap by assessing the practical

tools used by schools, school climate surveys, as an entry point to understanding and assessing trust within schools. All schools face pressure to continuously improve across a variety of measures linked to school climate and school trust. However, measuring school climate and levels of trust as completely separate dimensions of school environment doubles the required time and resources schools must put in. While further research is necessary to confirm the nuances of how school climate and trust conceptually overlap in student and teacher experiences, recognizing that existing tools like school climate surveys may have broader implications for school improvement efforts has powerful potential for both practice and research.

Research Questions

Trust has been included, though not explained nor explored, as a component of some school climate domains, specifically relationships (Darling-Hammond & Cook-Harvey, 2018; Wang & Degol, 2016) and teaching and learning (Bradshaw et al., 2014; Cohen et al., 2009; Thapa et al., 2013; Tschannen-Moran & Hoy, 1998). As measurement and research around school climate continue to grow, it is recommended that researchers further examine trust as a newer yet essential component of school climate and school climate improvement (Berkowitz et al., 2017; Thapa et al., 2013). Given the presence of trust and recommendations for future analysis in school climate research, there must be a measurable connection between these trust and school climate. However, research has not yet produced a theoretical or practical Venn diagram explaining the overlap between these two concepts. If school climate and trust are intertwined, language reflecting the assessment of trust elements should be embedded within school climate surveys. Operating under this assumption of linguistic evidence, the following two research

questions have been developed to assess how facets of trust may be present in and simultaneously measured by school climate surveys given to teachers and students:

- What differences in frequency and context of trust dimensions exist between student surveys and teacher surveys?
- How are survey items related to trust dispersed across the domains of school climate?

Significance

Academia has increased its attention and calls for further research related to school climate and trust between school stakeholders in the past few decades. Attempting to connect the faces of trust with domains of school climate through a linguistic analysis of school climate surveys lends further support for the need to connect the two more concretely. Schools are constantly pressed for time and resources, so multitasking tools are precious. A connection between measurement of trust and measurement of school climate would allow schools to expend the time and money necessary to survey one feature with the data collection benefits of two critical elements of school functioning and success. If a school climate survey is already, or could with some adjustments, be disaggregated to provide data on specific domains of school climate and faces of trust, schools would be able to target areas for improvement more effectively.

Bates (2010) writes that "Where education systems and their schools deny agency on the part of teachers, pupils, and parents, trust is likely to be in short supply" (p. 163), and Bryk and Schneider (2003) have labeled trust the "connective tissue that binds individuals together to advance the education and welfare of students" (p. 44). Positive school climate and high trust in

schools have many of the same documented benefits for schools, and both can be measured via surveys of different school stakeholders. However, trust is not explicitly linked to federal or state accountability while school climate is. Schools that are not regularly eliciting feedback on school climate from their students and teachers are missing out on important information and restricting the agency school stakeholders have in effecting change within their school. As such, school climate surveys have grown in popularity and use, while trust surveys have remained mostly relegated to research purposes. Both practitioners and researchers could better recognize and benefit from finding existing surveys that concurrently measure trust and school climate or from the future creation of such a survey if findings do not support an existing tool that jointly measures both school elements.

This research aims to take the first steps in analyzing the existence of a practical connection between school climate and trust by exploring how the five faces of trust are connected to the domains of school climate in school climate surveys. First, Chapter 2 will present the salient features and effects of positive school climates, followed by a literature review of the necessary elements and impacts of trusting relationships within schools in chapter 3. The next chapter will address the methodological approach of content analysis, specifically directed qualitative content analysis. Following this explanation, each step taken to gather and analyze data in this study will be described. Chapter five presents the findings of this study using frequency tables. The discussion chapter elaborates on the context and meaning of this study's findings, followed by the final chapter, the conclusion, which gives brief final thoughts and recommendations for future research.

CHAPTER 2

BACKGROUND

This section will begin with the core features of school climate, identified from multiple definitions gathered from research, government agencies, and private educational agencies with interests in school climate. The impacts of a positive school climate on students' academic performance, behavior, and emotional well-being will be summarized. Some of the benefits of a positive school climate on teachers are also included. Next, this section addresses the necessity of gathering school climate data from multiple stakeholders and includes some examples of discrepancies in school climate research findings. Finally, the background section concludes with an explanation of recent shifts in legislation that have begun to show support for the importance of school climate as a measure of school success and accountability in educational policy.

School Climate

Though school climate has been acknowledged in educational research for well over a century, there is still no singularly accepted definition (Berkowitz et al., 2017; Bradshaw, Waasdorp, Debnam, & Johnson, 2014; Cohen, 2014; Cohen et al., 2009; Thapa et al., 2013; Wang & Degol, 2016). The United States Department of Education's Office of Safe and Supportive Schools manages the National Center on Safe Supportive Learning Environments (NCSSLE), providing school climate resources. The NCSSLE (2021b) describes a positive school climate as

> a broad, multifaceted concept that involves many aspects of a student's educational experience… the product of a school's attention to fostering safety; promoting

> a supportive academic, disciplinary, and physical environment; and encouraging and maintaining respectful, trusting, and caring relationships throughout the school community no matter the setting… (para. 1)

Similar concepts are reflected in the National School Climate Center's (NSCC) definition, developed in 2007 and is still used on the organization's current website. The NSCC's (2021) definition states that school climate is "…the quality and character of school life. School climate is based on patterns of students', parents' and school personnel's experience of school life; it also reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures" (para. 1).

The NSCC's definition is explicitly referenced in some publications about school climate research and policy (Cohen, 2014; Cohen et al., 2009; Darling-Hammond & Cook-Harvey, 2018; Thapa et al., 2013), but other literature reviews avoid providing a single definition (Voight & Nation, 2016; Wang & Degol, 2016). Consistent across much school climate research is recognizing particular domains that represent the keystones of school climate. Safety is consistently accepted as a primary domain of school climate (Berkowitz et al., 2017; Cohen et al., 2009; Gase, Gomez, Kuo, Glenn, Inkelas, & Ponce, 2016; Thapa et al., 2013; Voight & Nation, 2016; Wang & Degol, 2016; Zullig, Heubner & Patton, 2011). Institutional or External Environment is also represented as a primary domain (Cohen et al., 2009; Thapa et al., 2013; Wang & Degol, 2016; Zullig et al., 2011) or as a part of a larger, general Environment domain (NCSSLE, 2021b; Voight & Nation, 2016). Additional domains represent similar concepts, though they vary in language. These include Academics (Tschannen-Moran & Gareis, 2015; Wang & Degol, 2016; Zullig et al., 2011) or Teaching and Learning (Cohen et al., 2009; Gase et al., 2016; Thapa et al., 2013), and the concept of Community (Tschannen-Moran & Gareis, 2015; Wang & Degol, 2016), alternately called Relationships (Berkowitz et al., 2017; Cohen et al.,

2009; Gase et al., 2016; Thapa et al., 2013; Zullig et al., 2011). Voight and Nation (2016) reference the domain of Engagement, which the NCSSLE also uses. In the NCSSLE framework, Engagement incorporates relationships as a subdomain (NCSSLE, 2021b). The NSCC (2020) also includes the additional domains of Social Media and Staff, which addresses leadership and professionalism. A domain included in only one literature review is that of the School Improvement Process (Thapa et al., 2013), acknowledging that school climate is an ongoing and malleable aspect of school life.

Each of these larger domains is broken into more specific dimensions that reflect the practices and policies that individuals should consider when assessing their school's climate. For example, the domain of safety can be broken down to include elements of physical safety, emotional safety, rules, discipline, bullying, and substance abuse (NCSSLE, 2021b; NSCC, 2020; Thapa et al., 2013; Wang & Degol, 2016). Relationships or community encompasses social support from peers and adults, respect for diversity (NSCC, 2020; Thapa et al., 2013), and connectedness and engagement both within the school and with the outside community (Tschannen-Moran & Gareis, 2015; Thapa et al., 2013; Zullig et al., 2011). The domain of teaching and learning includes social-emotional, ethical, and civic learning, high expectations and support for academics (NSCC, 2020; Tschannen-Moran & Gareis, 2015; Thapa et al., 2013; Zullig et al., 2011), professional relationships, professional behavior, and decision-making (Tschannen-Moran & Gareis, 2015; Thapa et al., 2013; Tschannen-Moran & Hoy, 1998), curriculum, professional development, and quality of instruction (Wang & Degol, 2016). The NCSSLE (2021b) uses the title of engagement for the domain that includes the concepts of cultural and linguistic competence and school participation, which align with teaching and

learning qualities as defined by other sources. The final core domain, environment, includes physical surroundings (NCSSLE, 2021b**;** NSCC, 2020; Thapa et al., 2013; Wang & Degol, 2016**;** Zullig et al., 2011), social inclusion (NSCC, 2020; Zullig et al., 2011), resources and supplies (Thapa et al., 2013), and organizational structure (Wang & Degol, 2016).

These school factors can impact the whole school culture and individual experiences of students and staff. Legislation at various levels has put pressure on schools to show growth and student achievement, most often measured via standardized test scores. This singular focus on academic assessment neglects that learning is a social and emotional process as much as an academic one, making student learning highly dependent on and reactive to the climate of the learning environment (Cohen et al., 2009; Darling-Hammond & Cook-Harvey, 2018). When a school environment is disordered or lacks an overall positive atmosphere, students can learn less effectively (Bradshaw et al., 2014). Students who face environmental disorder or challenges outside of school can significantly benefit from a stable and positive school climate, which has been connected to stronger gains and better outcomes for students living in adverse conditions (Darling-Hammond & Cook-Harvey, 2018). Regardless of the home environment, a positive school climate has been shown to promote student and staff social, emotional, physical, and intellectual safety (Cohen et al., 2009; Thapa et al., 2013; Wang & Degol, 2016) and can even be considered as a predictive factor of student well-being and achievement (Wang & Degol, 2016). Improved attendance and graduation rates, higher test scores, gains in reading and math, and fewer opportunities for bullying or violence are all cited as benefits of a positive school climate (NCSSLE, 2021).

Schools with good climates are “characterized by strong collaborative communities” (Cohen et al., 2009, p. 186) that promote healthy development and learning for students because school personnel can devote greater attention to meeting student needs when they work together. In school environments where students feel safe and cared for, adults' and peers' positive pressure and support can improve student learning, increase academic achievement, and raise graduation rates (Cohen et al., 2009; Tschannen-Moran & Gareis, 2015; Thapa et al., 2013). Secondary students who reported high feelings of safety and engagement had higher grade point averages (Gase et al., 2016). Similarly, math and reading achievement were higher for elementary students who felt they were a part of a caring classroom community, which linked students’ academic proficiency with a positive view of school climate (Sherblom, Marshall, and Sherblom, 2006).

Promoting such environments should be a priority in education today, as the influence of a positive school climate could contribute to narrowing achievement gaps (Berkowitz et al., 2017). Berkowitz et al. (2017) synthesized the findings of 78 peer-reviewed articles published between 2000 and 2015 related to student socioeconomic status, school climate, and student achievement. They found that 84 percent of the studies included in their review showed that a positive school climate had an additive effect on student achievement greater than the expected negative impact of a low socioeconomic background (Berkowitz et al., 2017). Conversely, a poor school climate can increase the correlation between low academic achievement and students who face significant barriers to education, such as students from low socioeconomic backgrounds, students with learning differences, and students at risk of failing (Berkowitz et al., 2017).

Another barrier to a student's education can be their behavior at school. Students with behavioral issues are also documented to benefit from a positive school atmosphere. Wang and Degol (2016) found that the research in their evaluation of school climate literature "supports the importance of school climate in reducing problem behaviors among students" (p. 331). Students' perceptions of their school environment impact their behavior (Koth, Bradshaw & Leaf, 2008), so the observed actions and responses of peers and adults contribute not only to overall school culture but also to individual choices. Punitive treatment of students reduces engagement and motivation and negatively impacts student-adult relationships, which can, in turn, affect a student's academic and behavioral success (Darling-Hammond & Cook-Harvey, 2018). Students gave lower school climate scores when teachers used exclusionary discipline practices to separate students from the rest of the classroom community, indicating that the classroom lacks order and safety when everyone is kept together (Mitchell & Bradshaw, 2013). Schools with higher proportions of student misbehavior, or schools that group these children together, may significantly undermine school climate because an increase in the actual or perceived percentage of disruptive peers is connected to lower student reports of school climate (Koth et al., 2008).

Concerns about the behavior of peers and teachers are just one possible source of stress and anxiety in school, two psychological factors that can impede a student's learning (Darling-Hammond & Cook-Harvey, 2018). However, a positive school climate can reduce these feelings and be an effective risk prevention factor, showing that school climate can also play a role in improving student health (Darling-Hammond & Cook-Harvey, 2018; Thapa et al., 2013). When student engagement and feelings of safety increased, Gase et al. (2016) reported decreases in levels of depressive behaviors and use of drugs and alcohol. Additionally, Flanagan and Stout

(2010) found that feelings of belonging and democratic teaching and learning practices, both connected to good school climate, increased levels of social trust in adolescents despite findings that students' social trust typically declines in middle and late adolescence. This aligns with Wang and Degol's (2016) conclusion that dimensions of school climate like a sense of belonging, strong relationships, and safety can influence students' emotional well-being. This may be a bidirectional influence, as individual student well-being and satisfaction with school can be a positive contributing factor to student reports of overall school climate (Cleveland & Sink, 2018; Zullig et al., 2011). Regardless of directionality, social-emotional learning interventions can work on both the individual and whole-school levels to connect student well-being with school climate and improve both (Cleveland & Sink, 2018; Darling-Hammond & Cook-Harvey, 2018; Voight & Nation, 2016).

While student well-being and outcomes are often the focus of education stakeholders, they are not the only school members impacted by school climate. Teachers also benefit from a positive school climate. Teacher beliefs about self-efficacy, positive school climate and student academic achievement have been linked in multiple studies. In Australia, teachers were documented as having a better sense of self-efficacy and more job satisfaction when working in schools with good scores on climate elements like relationships and resources (Aldridge & Fraser, 2016). Teachers who believe in the abilities of themselves, their leaders, and their colleagues to positively impact student outcomes contribute to the development of high quality academic environments and improved student motivation (Wang & Degol, 2016). A strong association has also been found at the elementary level between student proficiency in math and reading and teachers' perceptions of a positive school environment (Sherblom et al., 2006).

Additionally, the connections between student outcomes, professional relationships, job satisfaction, and school climate indicate that schools with more positive climates are more likely to retain teachers (Aldridge & Fraser, 2016; Cohen et al., 2009; Thapa et al., 2013; VanLone et al, 2019).

While school climate may primarily impact students and teachers, it is in fact a reflection of the collective actions and attitudes of all school members, and therefore, accurate assessment and improvement of school climate require that the perceptions of not just students and teachers but also administrators and families be considered (Berkowitz et al., 2017; Cohen, 2014; Cohen et al., 2009; Gase et al., 2016; Tschannen-Moran & Hoy, 1998; VanLone et al., 2019). The purposeful and democratic solicitation of feedback from all school community members gives school climate improvement a better chance of succeeding because any resulting reforms are removed from the realm of top-down dictates and instead created with a sense of combined leadership and responsibility because input from multiple impacted parties was sought out (Cohen, 2014; Cohen et al., 2009). However, the importance of gathering data from multiple school stakeholders is not widely reflected in current school climate research. In one review of school climate literature, researchers found that 64 percent of the included studies relied only on student reports of climate, while 13 percent relied solely on teacher reports, and a mere 6 percent utilized a combination of student and teacher reports (Berkowitz et al., 2017). While some researchers call for increased attention to student perceptions of school climate (Gase et al., 2016), it is important to recognize that teachers are also active in crafting and reacting to school climate, making them key leaders in any attempts to improve school climate (Voight & Nation, 2016)

The level of successful school climate improvement efforts can be unintentionally undermined when schools limit feedback to only students or only teachers because there may be significant variance in the opinions of different groups about the climate of their shared school (Cohen et al., 2009). Student ratings of climate and teacher ratings of climate have little correlation, but the actions of each group likely influence the other group's perception of school climate (Mitchell, Bradshaw, & Leaf, 2010; Gase et al., 2016). Some of this variance may stem from differing degrees of personal importance assigned to different school climate dimensions. Relationships were found to be especially important for student satisfaction in school (Zullig et al., 2011) but were also important to teachers participating in school climate improvement programs (Voight & Nation, 2016). While both teachers and students indicated that safety and academics were important, perceptions of these domains show some variance between the two groups. Teachers indicated that classroom discipline practices were significantly associated with overall perceptions of school climate, while ratings of the social environment and classroom management had less of an effect on student responses (Mitchell et al., 2010; Zullig et al., 2011). Another area of discrepancy is academic support and performance. The roles of teachers and students as provider/receivers and general/individual assessors understandably produce differences in perception of the frequency and quality of academic supports and expectations (Mitchell et al., 2010).

Variance in student and staff reporting of school climate may be explained by the role of classroom versus whole school factors. Research does not provide a conclusive answer as to whether classroom level or school level factors have the greatest impact on school climate, but it does recognize there can be variation between whole school climate and individual classroom

climates (Berkowitz et al., 2017; Koth et al., 2008; Mitchell & Bradshaw, 2013; Mitchell et al., 2010). Whole school elements like school size, the proportion of students from low socioeconomic backgrounds, and teacher turnover had limited influence over student perceptions of school climate (Koth, Bradshaw, and Leaf, 2008). However, Mitchell, Bradshaw, and Leaf (2010) found that whole school factors like student to faculty ratio, administrator turnover, and student mobility did significantly impact student perceptions of school climate. At the classroom level, students are sensitive to classroom factors like disruptive behaviors and overall classroom management, which can be linked to a teacher's level of control and, often, his or her age or experience level (Koth et al., 2008; Mitchell & Bradshaw, 2013). These same classroom factors may hold significant influence over teacher reports of school climate when compared to other dimensions (Mitchell et al., 2010).

Student and teacher reports of school climate are further complicated by individual factors like race, gender, and personality. White students consistently show higher school climate ratings than their minority peers (Koth et al., 2008; Mitchell & Bradshaw, 2013; Mitchell et al., 2010), as do female students (Koth et al., 2008; Mitchell et al., 2010). Individual personalities and preferences are stronger motivators of personal behaviors or perceptions than a given label or role (Tschannen-Moran & Hoy, 1998). Individual student traits can impact the enactment of teacher-student relationships, discipline policies, and academic expectations, but all of these school factors are also dictated by whole school structures that will inevitably influence student and teacher perceptions of school climate (Wang & Degol, 2016). Teachers are the mediators between individual students and broad whole school policies. Teachers are responsible for the daily actions and decisions that help or hinder school climate domains like relationships,

academics, and safety for all school stakeholders, so meaningful teacher engagement in school climate improvement efforts is critical (Thapa et al., 2013; Voight & Nation, 2016). Despite their active role in implementing school policies, a long history of education reform has shown that the level of teacher engagement sought in the development and choosing of school improvement policies is far below the degree of responsibility (and blame) they have in the execution and success of each new program (Cuban, 2013; Tyack & Cuban, 1995).

The disconnect between practice and policy is made clear in state and federal education programs, particularly when examining No Child Left Behind (NCLB) legislation and school climate. First enacted in 2001, NCLB broadened school accountability, measuring the success or failure of whole schools and then prescribing whole school sanctions and reforms to improve those schools that did not measure up. What was not explicitly taken into account, however, was the role that whole school climate plays in reform, as NCLB did not officially measure school climate despite its connection to academic achievement or its influence over the implementation of new programs or reforms (Cohen et al., 2009; Thapa et al., 2013). This is evidenced by Voight and Nation's (2016) finding that in the decade prior to their publication, the United States Department of Education "invested $70 million in districts and state education agencies explicitly for school climate measurement and improvement in secondary schools" (p. 174). The low amount over such a long time and the exclusion of elementary schools in this figure vastly underestimate the wide-ranging impacts school climate can have on students' academics, behavior, general well-being, and teacher satisfaction and performance. It is no wonder that researchers have been calling for education decision-makers to focus on the school climate as a top priority of both policy and practice at all levels for over a decade (National School Climate

Center, Center for Social and Emotional Education, and National Center for Learning and Citizenship at Education Commission of the States, 2007; VanLone et al., 2019; Wang & Degol, 2016).

Thankfully, there have been significant improvements in federal funding and attention to the importance of school climate since the introduction of Every Student Succeeds Act (ESSA) in 2015. ESSA requires non-academic measures as part of its school performance assessment, with school climate data included as a recommended option for fulfilling this requirement (Jordan & Hamilton, 2020; Kostyo, Cardichon & Darling-Hammond, 2018; Voight & Nation, 2016). The inclusion of school climate in federal legislation is a promising start, but for school climate to truly be valued as a practical and theoretical tool for school accountability and improvement, it will require regular, standardized data collection and the funding necessary to support these practices at the district level and above (Darling-Hammond & Cook-Harvey, 2018). Investment in locally-driven school climate initiatives is especially promising, given that locally driven programs are likely to have better outcomes because of their connectedness to the school community (Berkowitz et al., 2017). Again, promising moves have been made towards funding suck initiatives with federal grant money. Forty million dollars in federal grants were awarded for new or continuing school climate improvement efforts of Local Education Agencies for the 2019 fiscal year, along with $8 million in federal grants for the same purpose were available for State Education Agencies (Office of Elementary & Secondary Education, 2019a; Office of Elementary & Secondary Education, 2019b).

This increase in available funds and resources is mirrored by increased state attention to school climate, though the degree of importance and accountability associated with school

climate still varies widely. A decade ago, school climate was considered an aspect of health, safety, or special education departments by 22 states rather than a whole school concern and was mostly ignored in accountability measures (Cohen et al., 2009). Out of the 42 states who provided some definition of school climate, only a dozen states had broad, inclusive definitions of school climate, and only six had definitions that were considered accurate (Cohen et al., 2009). More recent examinations of state policies under ESSA indicated that 45 states and the District of Columbia have some use for school climate data, ranging from eight states using school climate surveys as a measure of school accountability, 16 states using school climate to inform school improvement, and 22 states measuring school climate for other uses like improving social and emotional learning for students (Jordan & Hamilton, 2020; Kostyo et al., 2018). Though it is promising that most states are utilizing school climate in some way, additional recognition of its importance would still benefit many districts and schools. While the inclusion of school climate in ESSA and state education plans in recent years show improvement over past policies, it is still a low weight measure when included as a part of accountability, and some states only use school climate assessment as a measure for improvement in schools that have already been labeled as struggling rather than recognizing its importance for schools at all levels of performance (Jordan & Hamilton, 2020; Kostyo et al., 2018). Federal support for school climate initiatives is particularly crucial for low-performing schools (Cohen et al., 2009), but a holistic look at school climate research clearly indicates it is a measure with the potential to benefit all schools.

For schools that wish to measure their climate, there are a multitude of surveys available to measure school stakeholders' views on school climate. Surveys offer a cost-effective method

of data gathering that is relatively quick and easy while still being a comprehensive measure of all school climate domains (Bradshaw et al., 2014; Jordan & Hamilton, 2020; Kostyo et al., 2018). In addition to regularly surveying school community members about school climate, offering professional development for teachers and administrators, providing technical support and resources for survey administration and analysis, and creating school-level and district-level climate teams are recommended steps for climate assessment and improvement (Pickeral, Evans, Hughes, & Hutchinson, 2009; Darling-Hammond & Cook-Harvey, 2018). These options are recommended as important steps in the many readily available research and resources describing processes school leaders can follow to improve the climate of their school (Pickeral et al., 2009; NCSSLE, 2021a; United States Department of Education, 2019; VanLone et al., 2019).

Conceptual Framework: Trust

Like school climate, there is no singularly accepted definition of trust. Hoy and Tschannen-Moran (1999) conducted a literature review of over 150 articles related to trust, including publications about individual, organizational, behavioral, and general trust. This extensive review synthesized a definition of trust based on common conditions or expectations necessary for trust to be built (Hoy & Tschannen-Moran, 1999). They state that "Trust is 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" (Hoy & Tschannen-Moran, 1999, p. 189). This definition was then explicitly applied to faculty trust in schools, cementing its place in educational research as a reliable definition of trust that has been referenced explicitly or as the historical basis for numerous other studies of trust's presence in and impact on schools. This

study will similarly rely on Hoy and Tschannen-Moran's (1999) definition to guide assessment and understanding of trust.

Trust relies first and foremost upon a shared acceptance of risk or vulnerability (Bryk & Schneider, 2003; Ennis & McCauley, 2002; Hoy & Tschannen-Moran, 1999). Next, trusting relationships rely on a sense of care, alternately labeled as benevolence, personal regard, concern, or friendship, which establishes that one will not be taken advantage of or mistreated by the trustee (Bryk & Schneider, 2003; Hoy & Tschannen-Moran, 1999; Combs, Harris & Edmonson, 2015; Seashore-Louis, 2007). Reliability establishes that the two parties can count on each other, predict actions and outcomes, and feel secure that the other party will fulfill their commitments (Adams & Forsyth, 2013; Hoy & Tschannen-Moran, 1999). Fulfilling commitments relies on competence, which indicates that the trustee has the requisite skills or abilities necessary for their role or responsibilities (Bryk & Schneider, 2003; Hoy & Tschannen-Moran, 1999; Combs et al., 2015). Honesty encompasses the character, integrity, and truthfulness of each party, indicating that words will match actions and each party will accept responsibility for their words, actions, and outcomes (Bryk & Schneider, 2003; Hoy & Tschannen-Moran, 1999; Combs et al., 2015; Seashore-Louis, 2007). The final component of openness indicates that both parties are willing to communicate, sharing information that is relevant and mutually accepting that shared information will be accurate and not used for exploitative purposes (Hoy & Tschannen-Moran, 1999; Combs et al., 2015).

It is generally recognized that trust grows slowly but can be broken quickly, building through repeated interactions where both parties demonstrate expected behaviors (Adams & Forsyth, 2013; Bryk & Schneider, 2003). These qualities apply to both group dynamics and individual

opinions. Institutional trust and collective trust dictate group interactions in schools. Institutional trust relies on a sense of professional responsibility and predictable interactions based on norms of behaviors that are appropriate and helpful within a particular organizational setting (Pelmaekers et al., 2014; Seashore Louis, 2007; Seashore Louis & Murphy, 2017). Collective trust is a group norm of trust, shared between different role groups and representing an overall culture of trust within an organization that can in turn influence the independent perceptions of school members (Adams & Forsyth, 2009; Adams & Forsyth, 2013). While the presence of all trust factors will yield the best results for an institution or organization, professional trust within or between institutions can exist without a sense of care, prioritizing job competence over personal relationships (Seashore Louis & Murphy, 2017).

At the individual level, relational trust represents the personal relationships between individuals within an organization. Relational trust is more individual and affective, based on frequent and reciprocal interactions that establish personal trust that can then extend to larger groups or systems within an organization over time (Adams & Forsyth, 2013; Daly, 2009; Schmidt, 2010; Seashore Louis, 2007; Seashore Louis & Murphy, 2017). Relational trust can be especially important for hierarchical organizations like schools that rely on members with less power and control to drive organizational action. The collective goals of an organization cannot be met by the work of one person, though they can be derailed by individual actions, so organizations like schools must utilize the personal and professional relationships between individuals and groups within the organization as evidence that leadership trusts each component to work towards desired outcomes (Pelmaekers et al., 2014; Tschannen-Moran, 2014). Stable school environments that do not experience large personnel or culture shifts are more likely to

establish trust because there are more opportunities for repeated personal and group interactions, as well as modeling of trusting and trustworthy behavior by all school stakeholders (Adams & Forsyth, 2013; Bryk & Schneider, 2003; Ennis & McCauley, 2002).

Tschannen-Moran and Hoy (1998) point out that "persons at different levels in an organization use different criteria in their judgments of trust" (p. 6), so it would follow that the ways in which students assess the trustworthiness of their school, and the persons within it, would differ from the ways their teachers, administrators, and parents evaluate school-based trust. Unfortunately, there is a lack of research on trust between students and school-based adults, so less is known about the impact of student trust formation in general and in more specific situations like schools planning or undergoing improvement processes (Biddle, 2017; Murray & Zvoch, 2011). Given that high trust and positive school climate produce many similar benefits for students and teachers, measuring both could be highly valuable for school improvement practices and broader policies. However, available measurement tools focus on assessing only one or the other. This research seeks to contribute to the gap in connections between levels of trust and school climate by assessing practical tools of school climate measurement student and teacher surveys to identify areas where an assessment of school climate may overlap with features of trust.

CHAPTER 3

LITERATURE REVIEW OF TRUST IN SCHOOLS

This literature review begins with a generalized section that summarizes trust's broader role in public perception of schools, school-based relationships, and school improvement. The second section focuses on the importance of trust for teachers, and teacher trust levels are linked to professionalism and overall school performance, particularly through teacher-student trust. The final section of this literature review addresses the effects of student trust levels on individual and whole school social, emotional, and academic outcomes.

General

There has been broad, growing doubt about the trustworthiness of school-based professionals and schools in recent years as narratives around American education seem to focus only on the ways teachers and schools are "failing" students. The public perception that teachers are not true or trustworthy professionals despite credentialing requirements and the increases in monitoring and sanctions, especially of urban and public schools, in the name of accountability provide evidence of public distrust of the education system (Bates, 2010; Ennis & McCauley, 2002; Romero, 2015). This is particularly concerning for school reforms and improvement policies because school trust levels are a powerful aspect of school life that can significantly help or hinder the success and sustainability of school reform efforts aimed at raising the test scores or lowering the disciplinary statistics so often used as the ultimate measures of a school's value (Adams, 2013; Bryk & Schneider, 2003; Tschannen-Moran, 2009). This limited understanding

of school work ignores the importance of less concrete or more indirect measures of school success like climate and trust. Trust can improve student motivation and school adjustment, increasing student academic performance (Adams & Forsyth, 2009; Lee, 2007). Also, trusting environments have more open communication and less need for disciplinary actions like suspensions because of more positive in-school relationships, improving school safety and educational outcomes for students (Ennis & McCauley, 2002; Mitchell, Kensler & Tschannen-Moran, 2018).

Trust impacts all school relationships, as teacher trust of principals, other teachers, and students and families are all moderately correlated (Hoy & Tschannen-Moran, 1999). Collective trust signals "the capability of instructional systems to generate knowledge and to deliver high-quality learning" (Adams, 2013, p. 375), so it is no surprise that improvements in school trust over time are connected to growth in reading and math scores (Payne, 2008). This is true even in schools with high proportions of students living in poverty. Adams and Forsyth (2009) found that the positive effect of school trust outweighed the negative effects of poverty on school performance. The socio-economic status and size of high schools are also non-predictive factors of trust, meaning that a large school or a school serving students in poverty is not necessarily going to have low trust; a promising finding is given that modifying school trust is often more plausible than modifying several students or economic power of a school community (Romero, 2015).

School trust measures and modification efforts like surveys and professional development about the importance and impacts of school trust require comparatively low financial investment, making them a high-leverage, low-cost option for school improvements (Adams, 2013; Romero,

2015). School reforms often come from parties outside of the immediate school community or are presented as mandates from higher-ups like district representatives or building administrators, preventing other school members like teachers from having agency and equal voice in the changes they will be required to enact (Bryk, 2010). Without teacher agency, there is no collective decision-making within the school, meaning there is likely to be little or no trust between individual school members and the broader educational setting they work and learn in (Bates, 2010; Bryk & Schneider, 2003). When teachers feel that the decision-making related to improvements has not been open to teacher participation, inquiries for teacher input are inauthentic, or their professional judgment has been ignored, they are not likely to trust the recommendations made by reformers (Daly, 2009; Seashore Louis, 2007). This lack of trust can undermine the success of prescribed reforms because teachers feel such reforms are restrictive of, irrelevant to, or distracting from their actual work (Daly, 2009; Seashore Louis, 2007).

Even if a decision cannot be made collectively, relational trust is at the center of teacher willingness to move forward with change efforts (Seashore Louis, 2007). Relational trust between school members at various levels increases teacher buy-in and commitment to change because there is a lower sense of personal risk when people engage in improvement attempts as a school community (Bryk, 2010; Bryk & Schneider, 2003; Payne, 2008; Seashore Louis, 2007). Higher levels of organizational trust can mitigate resistance to reforms because trust "allows leaders to ask for change without engendering suspicious resistance" (Seashore Louis, 2007, p. 18). Trust in leadership gives school members the flexibility to understand the intention behind reform instructions even if they are not presented perfectly (Combs et al., 2015). This helps to

place leadership in a position of supportive facilitation of change rather than being viewed as an enforcer or evaluator of strict sanctions (Daly, 2009).

Teachers

Schools with good faculty trust are more likely to have less conflict and to be more cooperative and collaborative within the building and with parents (Hoy & Tschannen-Moran, 1999; Seashore Louis, 2007). School-wide cooperation is also connected to the trust of the administration. Teachers who felt their principals were trustworthy showed higher levels of engagement and professionalism and more trust of colleagues, believing that their fellow teachers were committed to students, cooperative, and competent (Tschannen-Moran, 2009; Tschannen-Moran & Gareis, 2015; Wang & Bird, 2011). Teacher trust of other teachers is also based on perceptions of the school's teachers as a collective unit, which is assessed by observing other teachers' behaviors (Adams, 2008). Teachers who trust their colleagues feel a stronger sense of teacher efficacy and are more motivated to take on school roles or commitments outside of standard contractual obligations (Adams & Forsyth, 2009; Hoy & Tschannen-Moran, 1999; Tschannen-Moran; 2009). Colleagues that demonstrate competence, professionalism, and commitment to students are more likely to be trusted, and teachers who trust their colleagues perceive a greater sense of professionalism in them (Tschannen-Moran, 2009).

Teachers in high trust environments have a shared language of values, agreement of what good teaching looks like, observable professionalism, and show care for their school community through socializing (Adams & Forsyth, 2009; Seashore Louis, 2007). Trusting teachers are more open to trying new teaching practices that could help students (Seashore Louis, 2007). Teacher trust, particularly trust of their students as capable learners, has been shown to buffer against

teacher burnout as well (Van Maele & Van Houtte, 2015). Low trust environments lack unity and have poor social cohesion, which becomes particularly evident in times of change with behaviors like less cooperation from veteran teachers, self-isolation of weaker teachers afraid of scrutiny or consequences, and stronger teachers becoming outspoken because they do not want to be told what to do (Payne, 2008; Seashore Louis 2007). Lack of trust between teachers is linked to discomfort with sharing best practices, more difficulty learning from colleagues, lower rates of information exchange, less use of adaptive practices, and less creation of new knowledge because communication and sharing of resources decrease in low trust environments (Adams, 2013; Payne, 2008; Tschannen-Moran, 2009). This unwillingness to take professional risks in low trust schools aligns with findings that low trust contributes to poor teacher engagement, collaboration, and professionalism, which makes building teacher capacity and creating a student-centered learning environment very difficult (Adams, 2008; Bryk, 2010; Seashore Louis & Murphy, 2017).

Regardless of overall school trust, teachers may feel it is their responsibility to take the lead in the beginning and continuously develop trusting relationships in their own classrooms through intentional actions that build strong personal relationships with students and curriculum choices that invite all students, even disengaged or disruptive ones, to successfully participate as members of the classroom community (Ennis & McCauley, 2002; Gregory & Ripski, 2008; Mitchell et al., 2018). Teachers who see their students as responsible learners who are capable of meeting academic standards will be more likely to try new, better teaching strategies that can in turn increase students' understanding of content and beliefs about their own abilities (Adams, 2013; Adams & Forsyth, 2013; Van Maele & Van Houtte, 2010). This may include incorporating

strategies that support independent student learning, which rely on teachers' belief that they can trust students and families (Adams & Forsyth, 2013). Teachers trust students and families more when they work in environments with a high teacher or collective trust, as trust becomes a lubricant that allows school staff to be more responsive to the needs of students and their families (Adams, 2013; Adams & Forsyth, 2009; Tschannen-Moran, 2009). Faculties led by principals perceived as trustworthy were more likely to treat students equitably, connect students in need to resources, and take the academic mission of their school more seriously (Seashore Louis & Murphy, 2017; Tschannen-Moran & Gareis, 2015).

Teachers who trust their students and school community are also more successful at resolving conflict (Karakuş & Savaş, 2012). In classrooms with trust, teachers can spend more time focusing on supporting students academically because they are spending less time managing undesirable student behaviors (Adams & Forsyth, 2009). Discipline-based on relationships, like humanistic discipline strategies that incorporate respectful confrontation and compromise between teachers and students as both responsive and preventative measures, is both predictive of and reliant on strong trust between teachers and students (Arslan & Polat, 2016; Gregory & Ripski, 2008; Karakuş & Savaş, 2012). Comparatively, dominating or controlling discipline approaches negatively correlate with teachers and students (Arslan & Polat, 2016; Karakuş & Savaş, 2012). There is no need for teachers to employ punitive control mechanisms when they trust their students to make good decisions (Adams & Forsyth, 2009).

Students

In the limited research that has been done on student trust, it has been found that student trust in teachers supports students' social, emotional, and cognitive needs without requiring

modification of school context, community, or resources (Adams, 2014). Student trust in teachers is positively correlated with student feelings of safety, and students are more likely to report safety concerns when they trust their teachers and administrators (Mitchell et al., 2018). Elementary and middle school student and teacher reports of trusting relationships show a positive association between trust and student ratings of emotional support, engagement, and satisfaction with school (Murray & Zvoch, 2011). Student trust in teachers can even improve student identification with the school over the negative influences of poverty (Mitchell et al., 2018). This may mitigate risky student behaviors outside of school as well because students in poverty who do not have their social and emotional needs met by trusting relationships in school may seek satisfaction of these needs through other, potentially dangerous, parts of their environment (Adams & Forsyth, 2009). Research also suggests that student trust in teachers is lower for African American students, and it declines for all students as they progress through school (Mitchell et al., 2018).

These concerns linked to student trust underscore the need for the authentic building of student trust in higher grade levels as students move from naïve trust, based on a teacher's inherent trustworthiness because he or she is an adult, into a grounded trust that requires teachers to show trustworthiness through high-quality explanation, fair negotiations, and student participation in decision-making (Thornberg & Elvstrand, 2012). Students who work cooperatively with teachers to construct knowledge build trust over time, improving classroom environments (Ennis & McCauley, 2002). The benefits of such cooperation can extend beyond individual classrooms and into whole school improvement as well. After a group of students participated in a structured school reform process as co-leaders with their teachers, they had a

better understanding of teacher competence, more empathy for the challenges their teachers faced, and more openness in their communication with teachers (Biddle, 2017). Given that competence, benevolence, and openness are three of the five faces of trust (Hoy & Tschannen-Moran, 1999), this indicates that students who work closely with adult partners to improve their schools develop greater levels of trust with those adults.

Focusing on the element of benevolence shows that perception of care is at the core of student trust. Broadly, students have higher levels of trust in teachers who are more responsive to their needs because students understand an unresponsive teacher as one who is not paying attention to them or who is unconcerned with the nuanced interpersonal dynamics that make classrooms work (Mitchell et al., 2018; Wooten & McCroskey, 1996). Teachers who demonstrate that they are committed to their students, even students who may be perceived as difficult, by showing they care about students' well-being and persevere in creating opportunities for positive interactions that nurture their relationships with students are seen as being more deserving of student trust (Ennis & McCauley, 2002). Showing acceptance of students and treating students with respect and personal attention make it easier for students to build trusting relationships with a teacher as well, because that teacher is making students feel important in their classroom (Ennis & McCauley, 2002; Murray & Zvoch, 2011).

A variety of classroom-based procedures and strategies used by teachers to demonstrate care and build trust with students, particularly students in urban schools, have been documented by researchers. Teachers support student learning and build student trust when they hold consistent, the high expectations for student work while offering multiple, teacher-supported opportunities for students successfully complete challenging work if needed (Ennis & McCauley,

2002; Liang**,** Rocchino, Gutekunst, Paulvin, Melo Li, & Elam-Snowden, 2019). This builds students' trust in their own academic capabilities and sets a foundation for trusting the teacher, as these practices show teachers care about students' success (Ennis & McCauley, 2002). Teachers can also encourage trust by intentionally structuring classroom time and processes, ranging from simple greetings to support for deeper conversations, in ways that invite students to share their outside-of-school experiences in an empathetic and respectful environment (Liang et al., 2014).

Students' personal experiences and interests can also be incorporated into academics by using content that is relevant and meaningful for students, opening opportunities for students to actively engage with the curriculum and build stronger relationships with their teachers because teachers show they care about students as people when students' interests are respectfully incorporated as a valuable part of their schooling (Ennis & McCauley, 2002; Liang et al., 2019). Responsive, high-quality instruction coupled with special responsibilities and personal care can build trust even with disruptive or disengaged students over time, inviting them to learn and grow while improving their self-esteem and protecting their pride (Ennis & McCauley, 2002). Challenging academic tasks are seen as more approachable, and students are more likely to take academic risks like seeking help when they trust their teachers and showing trust in teachers encourages student behaviors that can have a significant positive impact on their learning (Bryk & Schneider, 2003; Ennis & McCauley, 2002; Romero, 2015). Additionally, giving students choice and options to adapt content to meet their learning needs, indicating they are competent decision-makers and learners, empowers students in the classroom while building their trust (Ennis & McCauley, 2002).

High schoolers with higher trust in their teachers are more likely to have higher GPAs, graduate, and have more ambitious post-secondary plans (Romero, 2015). In lower grades, schools with chronically weak trust showed very little improvement in math and reading scores, whereas schools with strong collective trust showed improvement in math and reading even after controlling for contextual factors like socio-economic status and prior achievement of students (Adams, 2014; Bryk & Schneider, 2003). When socio-economic status was included, trust was found to moderate the effects of poverty on student academic achievement (Adams, 2014). The average elementary student receiving free or reduced-price lunch in a high-trust school scored significantly better in math and reading than comparable groups in low-trust school, who performed well-below the mean (Adams, 2014; Adams & Forsyth, 2013). Improved academic performance might be achieved in part because collective student trust builds students' abilities to be responsible, self-regulating learners (Adams, 2014).

In addition to having a strong influence over students' academic achievement, collective trust in urban elementary schools is also the strongest school-level influence on positive student behavior (Adams, 2014). The positive impact of trust on student behavior can be extended to middle and high school students as well. Murray and Zvoch (2011) found that teacher and student ratings of trust in their relationships had a negative impact on reports of conflict and conduct problems like delinquency and aggression in pre-k through eighth grade African American students in a large urban district. In Romero's (2015) examination of a nationally representative sample of high schoolers, she determined that regardless of school size or student socioeconomic status, "students who are more trusting of their teachers and schools get in trouble less frequently and have better high school outcomes," (p. 226). Students are more likely

to trust and believe in the authority of teachers with whom they have strong relationships, and teachers who build strong relationships with students can use those relationships as the basis of discipline policies to produce more cooperative and less defiant student behaviors (Gregory & Ripski, 2008). When positive, relational approaches to discipline are lacking, teachers may unintentionally sow distrust and even further contribute to discipline issues by relying on controlling disciplinary practices like awarding or retracting privileges, assigning external punishments like detention, and removing students from the classroom community (Adams & Forsyth, 2013; Ennis & McCauley, 2002).

CHAPTER 4

RESEARCH METHODOLOGY

The research methodology selected for this study is content analysis. The research design section providing broad characteristics of content analysis will be introduced first, followed by the characteristics of a qualitative content analysis, concluding with the specific requirements necessary for a directed qualitative content analysis. The data selection section is next. This section provides details about the researcher's preparations for this study, including selection of samples, selection of manifest content, and familiarization with the samples by giving a brief, research-based background for each step followed by how that step was applied in this particular study. The same organizational pattern is applied in the data analysis section. The data analysis section provides detailed explanation of selecting and defining categories, developing and testing of codes, and completion of the full data analysis.

Research Design: Content Analysis

To answer the questions of "What differences in frequency and context of trust dimensions exist between student surveys and teacher surveys?" and "How are survey items related to trust dispersed across domains of school climate?", the researcher determined that content analysis was the most appropriate methodology. Krippendorff (2019) defines content analysis as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the context of their use" (p. 24). Content analysis can be used on any written text in which the language contained within the text is in its finished form (Bengtssen,

2016; Mayring, 2014). Content analysis is used to organize and draw out real meaning from a collection of data by distilling the language of the original content into more manageable content-related groups or categories (Bengtssen, 2016; Elo & Kyngäs, 2008) making it a scientific tool ideal for the development of new insights, improving understanding of specific phenomena, and guiding practical action (Krippendorff, 2019).

Content analysis as a broad methodology is not wholly standardized outside of the requirement that texts must be the sources analyzed. It can be used for quantitative and qualitative research and is based on inductive or deductive data analysis (Elo & Kyngäs, 2008; Drisko & Maschi, 2015; Hseih & Shannon, 2005; Krippendorff, 2019). Krippendorff's (2019) definition encompasses both quantitative and qualitative content analysis, though a few additional characteristics are required of qualitative content analysis. Qualitative content analysis relies on the close reading of a small number of texts, the rearticulation of the texts to show new interpretation within a scholarly community, and the acknowledgment by researchers that their own social and cultural understandings are inherent in the process of analyzing language (Krippendorff, 2019). Other researchers have further delineated qualitative content analysis's unique practices and characteristics. Drisko and Maschi (2015) note that qualitative content analysis "allows for exploring the complexity of communications in ways that may not be possible through quantitative analyses" (p. 86). Because qualitative content analysis does not rely on statistical analysis for results, there is an opportunity for more flexibility in the process and interpretation of findings (Bengtssen, 2016; Drisko & Maschi, 2015).

The findings of qualitative content analyses are meant to be meaningful within a specific context rather than widely applicable within a field, and while qualitative content analysis has

roots in the social sciences, it is useful in all fields because it gives researchers the ability to extend existing theories and offer new interpretations of data to move their field forward (Bengtssen, 2016; Drisko & Maschi, 2015; Krippendorff, 2019). Hseih and Shannon (2005) define qualitative content analysis as "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns." Similar features, like text-based data, a systemic process of coding, describing or interpreting data, and results producing themes and patterns appear in other researchers' definitions of qualitative content analysis as well (Assarroudi, Nabavi, Armat, Ebadi, & Vaismoradi, 2018; Bengtssen, 2016; Drisko & Maschi, 2015).

Qualitative content analysis is differentiated into subcategories according to the procedure applied by a researcher. Hsieh and Shannon (2005) present the three qualitative content analysis subcategories of conventional, directed, and summative, which differ in their outcomes, sourcing of codes, and analysis of explicit or implicit content. A directed approach to qualitative content analysis is founded upon previous research about a specific topic or phenomenon that is incomplete and could therefore be further described or supported through new application (Hseih & Shannon, 2005). Directed qualitative content analysis may be based on deductive codes derived from research initially, followed by a second round of analysis with codes derived inductively from the remaining content that creates an opportunity for expansion of the foundational theory (Hseih & Shannon, 2005).

Based on these qualities, a directed qualitative content analysis process was selected as the best fit for the goals of this study. Trust in schools has been the subject of much research, summarized in chapter 3. However, gaps still exist in organizational trust theory when

attempting to measure the trust levels of students and teachers. A directed content analysis methodology allows this study to extend the current research findings related to trust in schools. Following the guidelines established by Hseih and Shannon (2005), research questions and primary codes found in existing understandings of school based trust have been developed with the intention of addressing the lack of concrete evidence in research of a connection between the theoretical framework of trust and the practical measurement of school climate for students and teachers. Comparing teacher-facing and student-facing surveys should improve understanding of the similarities and differences in how trust is measured and how trust is connected to school climate domains for each group.

While directed content analysis offers some specific guidance for how to process and analyze data, it is important to note that content analysis as a whole relies on an understanding that broad stages generally accepted within the methodology must be tailored to a study's individual texts and purpose, necessarily altering the exact application of each step according to that study's needs (Mayring, 2014). The three core phases of content analysis, being preparation, organizing, and reporting, encompass broad processes and do not have universally agreed upon rules, therefore requiring additional explanation to clarify their specific application in a directed content analysis (Assarroudi et al., 2018; Elo & Kyngäs, 2008). Assarroudi et al. (2018), have synthesized directed qualitative content analysis literature and present a detailed deconstruction of each of the three phases, used to guide the planning and analysis of this study, which are summarized below. Because the texts analyzed for this study are surveys rather than interviews, steps four and five in Assaroudi et al.'s (2018) directed content analysis process have been excluded from this study.

Table 1. Steps for Completing a Directed Content Analysis, from Assarroudi, et al. (2018)

Preparation	1. Acquiring necessary general skills 2. Selecting an appropriate sampling strategy 3. Choosing manifest or latent content for analysis ~~4. Developing interview questions~~ ~~5. Interviewing and transcribing interviews~~ 6. Determining units of analysis 7. Immersion in the data
Organizing	8. Developing categories from theory 9. Defining categories based on theory 10. Determining codes for each category 11. Pilot testing of categories 12. Choosing anchor samples for each category 13. Performing the complete data analysis 14. Categorization of inductive codes 15. Identifying connections between theory-based and inductive categories
Reporting	16. Reporting all steps in data analysis process

Before any of these steps are undertaken, it is important for a researcher to reflect on their own positionality and its possible impact on their work. Accordingly, this was the first step of this study, and the results of that reflection are shared in the next section. Discussion of the steps included as part of the preparation stage begin the next section, the Data Selection section, followed by discussion of the steps included within the organizing stage in the Data Analysis section. The third stage of reporting is included as a part of the Data Analysis section in this study.

Positionality

Prior to beginning this study, the researcher engaged in self-reflection to assess the motivations, influences, and beliefs that form the position from which the researcher approaches education in general and the contents of this specific study. The researcher views herself as a

practitioner-researcher, whose interest in educational research stems from a desire to contribute practical solutions to challenges witnessed and lived during the researcher's six years as an urban educator. The schools in which the researcher has worked reflect complex intersections of race, gender, wealth, politics, and geography, most intensely represented by the researcher's position as a middle class, white, cisgender female teaching students who represented diverse backgrounds. The researcher's interest in trust, and motivation for this research project, stems from a desire to identify the qualities of classrooms that empower students and teachers to be co-creators of knowledge. It is the hope of this researcher that joint ownership of learning will empower teachers and students to be advocates for themselves and their community members in ways that improve both individual opportunities and the field of education as a whole.

Data Selection

Preparation

1. Acquisition of General Skills

Assarroudi et al. (2018) begin by establishing the researcher's qualifications for conducting a directed content analysis by ensuring that the researcher possesses necessary skills like analytical abilities, self-reflection, critical thinking, and creative thinking. Preparations for this study completed by this researcher included course work associated with the researcher's graduate program, specifically a qualitative research methods course and courses related to philosophies of education, history of education in the United States, and sociology of education. These courses prepared the researcher to adhere to a specific method of inquiry and analysis while still considering the broader context and implications of this research. The researcher also engaged in self-reflection by identifying her positionality, as explained in the previous section.

2. Selection of Sampling Strategy

Qualitative content analyses do not require large sample sizes, though the sample must be representative of the context and application from which samples are drawn (Assarroudi et al., 2018; Bengtssen, 2016; Drisko & Maschi, 2015; Elo & Kyngäs, 2008; Krippendorff, 2019). Regardless of sample size or sampling method, materials selected for a qualitative content analysis must be appropriate for the research questions being explored, adequate in information to answer the research questions, and thorough enough to include the possibility of disconfirming or elaborative information related to the research questions (Drisko & Maschi, 2015). Sampling concludes when the body of materials found reaches redundancy or saturation, which may require multiple rounds of sampling (Assarroudi et al., 2018; Drisko & Maschi, 2015).

For this study, the specific sampling method employed was purposive or relevance sampling. Purposive or relevance sampling is used when researchers want to select all text units that could contribute to answering their specific research questions (Krippendorff, 2019). Smaller, purposive samples reduce the level of transferability of results and limit generalization of findings to the population from which the sample was originally drawn (Drisko & Maschi, 2015). Given that the findings of this study are not intended for application outside of the specific context of measuring teacher and student perceptions of school climate in conjunction with trust, sampling was undertaken with an understanding that a small and specific sample size was acceptable for the purposes of this study.

Samples were gathered using commonly available search engines so that all included surveys would be easily accessible. Any possible sample that required specific credentials or for which a layperson may not be granted access was excluded, including samples that required

direct contact with an organization or representative to request permission or access. However, if a website only required the entry of an email address, but no specific point of contact or additional permission to download the survey, that sample was considered eligible.

To ensure that all surveys selected were appropriate for the research questions directing this study, primary search terms were drawn from the research questions themselves. Initial terms included combinations of the words and phrases teacher, student, school climate, and survey. Surveys considered for inclusion in the final sample had to contain these key phrases within the title of the specific survey document or in the title of the website or webpage hosting the survey. To increase sample size and improve reliability and generalizability, an iterative sampling process was used after the initial search for samples, resulting in two additional sampling rounds (Drisko & Maschi, 2015). Additional terms like elementary, secondary, middle school, and high school were added after the first round of searches. The third and final round of sampling added specific state names to the previously used search terms. The inclusion of specific state names indicated the saturation point of sampling, as various websites for state departments of education linked to or recommended surveys produced by other sources that had already been included.

Prior to searching for samples, the researcher determined that school climate surveys intended for students or teachers would be the texts analyzed. To be eligible for inclusion, surveys had to be available in English and intended for use within the United States. Surveys also needed to be recommended for use within the last five years, though their initial date of creation could be outside of this five year window. Surveys produced in the last two years that

reflected the impact of the COVID-19 pandemic on school operations via questions about virtual learning were eligible if the majority of the survey focused on in-person learning experiences.

These parameters produced a representative sample of surveys gathered from private educational organizations, branches of the federal government, and state or local departments of education. The final sample of school climate surveys included 39 total surveys. Because one of the guiding research questions specifically asks about differences between teacher and student surveys, the total sample was differentiated based on audience, creating subsamples of surveys intended for teachers and staff, elementary students, and secondary students. The subsample of surveys directed at teachers and staff included 12 surveys, the subsample of surveys directed at elementary students included 10 surveys, and the subsample of surveys directed at secondary students included 17 surveys.

Mayring (2014) suggests that exact descriptions of the origin of each included material, including the author or parties involved in production, the target group, circumstances of origin, and socio-cultural background, be shared to further support the exact defining characteristics necessary for inclusion in the analysis. In an effort to adhere to this expectation of transparency, a description of each survey included in the final sample with the available elements of origin according to Mayring (2014) is included as Appendix A. Surveys are identified by their producer or publisher when specific examples are used.

3. Deciding on Analysis of Manifest or Latent Content

Depending on a study's purpose, researchers must determine whether manifest or latent content holds the information necessary for analysis (Assaroudi et al., 2018; Elo & Kyngäs, 2008). Manifest content refers to the text as written, focusing on what the text visibly or literally

says and utilizing the appearance of exact words as written as the data to be analyzed (Bengtssen, 2016; Drisko & Maschi, 2015; Hseih & Shannon, 2005). Latent content refers to the interpretive level of analyzing text, where researchers find meaning related to what the text is conceptually about rather than what is explicitly said or written (Assarroudi et al., 2018; Bengtssen, 2016; Drisko & Maschi, 2015; Hseih & Shannon, 2005). Given that this study seeks to explain how words representing elements of trust are or are not present in school climate surveys, the manifest content of the survey was selected as the source of data. The appearance and counting of manifest content, such as the numerical counts employed by this study, can be the initial evidence of themes or new conceptualizations of a theory presented by a directed qualitative content analysis in support or nonsupport of the extension of a theory or presence of a theme in a qualitative content analysis (Assarroudi et al., 2018; Bengtssen, 2016; Drisko & Maschi, 2015; Mayring, 22014; Krippendorff, 2019).

4. Specifying Unit of Analysis

A unit of analysis represents each material or source from which data will be gathered, which could be as large as an entire community or as small as a single individual (Assarroudi et al., 2018). Assarroudi et al. (2018) give the example of a transcript of a single interview as one unit of analysis. Based on this example, the unit of analysis selected for this study was a school climate survey intended for a single audience. Therefore, when considering the Tennessee School Climate Measurement Package for 2020-21, the teacher survey, elementary school student survey, middle school student survey, and high school student survey were each treated as individual units of analysis because they are all intended for a unique audience. Demographic questions were not included as part of the analysis unit because of irrelevance to this study's

research questions, and any sections labeled as optional sections were excluded from the unit of analysis because of presumed inconsistency in use.

5. Immersion in Data

To properly code data for a qualitative content analysis, one must first become very familiar with the text materials included in the data set (Drisko & Maschi, 2015). Bengtssen (2018) refers to this as the decontextualization stage, while Assarroudi et al. (2018) label it as immersion in data. In this step, researchers must read and review each material several times to get a sense of the whole, building awareness of the context and components present before attempting to break the data into smaller pieces that are meaningful to that study (Assarroudi et al., 2018; Bengtssen, 2016; Drisko & Maschi, 2015; Elo & Kyngäs, 2008).

After the final sample was gathered, each included survey was read one time to familiarize the researcher with survey formatting, topics, and language patterns across the three audience groups. After this first reading, surveys were read 2 additional times when applying labels to questions based on school climate domains. These reads contribute to immersion in the data because the final data being sought, the presence of words indicating faces of trust, was not yet being assessed. By reviewing each survey three times before beginning final data collection, all survey items were very familiar to the researcher prior to analyzing surveys for the presence of trust.

Data Analysis

Organization

6. Developing Formative Categories

Analysis, including content analysis, reduces a given volume of information by grouping it into categories that show broad connections that can then be understood in new ways (Bengtssen, 2016; Elo & Kyngäs, 2008). In the case of directed qualitative content analysis, formative categories are derived deductively from the prior research or established theory guiding the current study (Assarroudi et al., 2018; Drisko & Maschi, 2015; Elo & Kyngäs, 2008; Hseih & Shannon, 2005; Mayring, 2014). While these deductive categories are the main categories used, categories are still considered formative at this stage because it is possible that inductively identified categories may arise when materials are analyzed (Assarroudi et al., 2018). Categories should be "internally homogenous and externally heterogenous, which means that no data should fall between two groups nor fit into more than one group" (Bengtssen, 2016, p. 12). Mutual exclusiveness amongst categories enables all material connected to the focus of the study to be represented without fear of repetition producing inaccurate findings (Drisko & Maschi, 2015).

Two main categories were derived from research and applied in this study. The broadest interests of this study are represented by the main categories of school climate and trust. Elo and Kyngäs's (2008) category abstraction process, used to formulate general descriptions of topics of interest through multiple levels of categorization, was used after these two main categories were selected. Mid-level categories, called generic categories, were developed for each main category (Elo & Kyngäs, 2008). Generic categories were derived from research as well and represent the

commonly accepted subfactors of school climate and trust in schools. The generic categories within the main category of school climate were safety, academics, relationships, and environment. Generic categories selected for the main category of trust were benevolence, reliability, competence, honesty, and openness. Additionally, the use of the exact word trust was included as a generic category within the category of trust. The final, smallest level of categorization is called sub-categories (Elo & Kyngäs, 2008). Subcategories in this study were linked directly to individual code words and phrases.

7. Theory-based Definitions of Categories

Definitions of categories that are clear, objective, and accurately represent the theory or research upon which a directed qualitative content analysis is based must be created by the researcher once deductive categories have been decided (Assarroudi et al., 2018; Hseih & Shannon, 2005). Definitions of categories are necessary so that researchers can consistently and precisely determine which text components belong in each category (Mayring, 2014). Additionally, subcategories may be specified to elaborate on and provide structure within the main categories (Drisko & Maschi, 2015).

Because school climate does not have a universally accepted definition in research, definitions from school climate organizations like the National Center on Safe and Supportive Learning Environments (2021b) and The National School Climate Center (2021) were consulted and synthesized to produce a working definition for this study. For the purposes of data analysis, this study defined school climate as the overall character of a school, comprised of the elements of safety, academics, relationships, and overall environment as experienced by the students, staff, and families at that school.

Research backed definitions of generic categories are also needed. Safety is nearly universally recognized as a key element of school climate in research, with the domain of safety including physical and emotional safety, school and classroom rules, disciplinary practices, substance use and abuse, and bullying (Berkowitz et al., 2017; Cohen et al., 2009; Gase, et al., 2016; Thapa et al., 2013; Voight & Nation, 2016; Wang & Degol, 2016; Zullig, et al., 2011). The category of academics included concepts related to teaching and instructional practices, academic expectations, support for student learning, specific curricula including ethical and civic learning, cultural and linguistic competence, professional behavior, professional development, and decision-making (NSCC, 2020; Tschannen-Moran & Gareis, 2015; Tschannen-Moran & Hoy, 1998; Thapa et al., 2013**;** Wang & Degol, 2016; Zullig et al., 2011). The relationships category was defined by social support from peers and adults, connection to school, care for others, sense of community, and involvement of family (NSCC, 2020; Tschannen-Moran & Gareis, 2015; Thapa et al., 2013**;** Zullig et al., 2011). Environment was made up of the condition of the physical building, organizational structure of the school, availability of resources and supplies, and overall sense of positivity or negativity (NCSSLE, 2021b**;** NSCC, 2020; Thapa et al., 2013; Wang & Degol, 2016**;** Zullig et al., 2011).

Trust within schools has a more widely accepted definition, stemming from the work of Hoy and Tschannen-Moran (1999), so this main category did not require the researcher to develop a definition for this study. Hoy and Tschannen-Moran's (1999) definition of trust within schools has been quoted or referenced continuously in school-based trust research since publication and was the definition applied in this study. According to Hoy and Tschannen-Moran (1999), "Trust is 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). Data collection for this study is based on the five faces of trust, being benevolence, reliability, competence, honesty, openness, with the addition of the appearance of trust itself. Each of these generic categories is defined based on explanations given by Hoy and Tschannen-Moran (1999) and other researchers who have examined trust in schools in the next paragraph.

Benevolence is most succinctly communicated as a sense of care and the belief that each party wishes to protect the well-being of the other (Bryk & Schneider, 2003; Hoy & Tschannen-Moran, 1999; Combs, Harris & Edmonson, 2015; Seashore-Louis, 2007). Reliability indicates that both parties are secure in their ability to predict the behaviors of the other (Adams & Forsyth, 2013; Hoy & Tschannen-Moran, 1999). Competence indicates that both parties have the skills and abilities necessary to fulfill the other party's expectations (Bryk & Schneider, 2003; Hoy & Tschannen-Moran, 1999; Combs et al., 2015). Honesty is most simply defined as integrity and truthfulness in the words and actions of each party (Bryk & Schneider, 2003; Hoy & Tschannen-Moran, 1999; Combs et al., 2015; Seashore-Louis, 2007). Openness shows a willingness from both parties to communicate relevant information with the other party (Hoy & Tschannen-Moran, 1999; Combs et al., 2015). The final generic category, included in case the concept of trust was explicitly addressed by a survey is defined using the same definition as the main category of trust.

8. Determining Codes & Coding Rules

Codes, like categories and subcategories, should be mutually exclusive and provide clear examples of the differences between the categories and subcategories created, improving trustworthiness (Assarroudi et al., 2018). The exact codes applied to the text should also be based

on the research or theory guiding the analysis (Assarroudi et al., 2018; Hseih & Shannon, 2005). When a specific word or phrase that appears in the content is selected as a code, this is called in vivo coding (Drisko & Maschi, 2015). This type of coding aligns with analysis of manifest content because it relies on the explicit appearance of a previously determined word or phrase that is understood to successfully communicate a specific meaning in all instances (Drisko & Maschi, 2015). Coding of data presents the largest opportunity for unintentional error because of the quantity of information being assessed, so clear inclusion and exclusion criteria must be established and communicated by the researcher so that readers understand the exact procedures followed for processing data and can therefore reliably assume that all relevant data has been included (Bengtssen, 2016; Mayring, 2014). This increases the reliability of the study by ensuring that the study is duplicable, meaning the same data would respond in the same way if the procedures were replicated (Krippendorff, 2019; Mayring, 2014).

All survey questions were coded into one of school climate's generic categories of safety, academics, relationships, or environment. Any statement explicitly referencing a form of the word safety, academics, relationship, or environment was coded to fit that category. Each question was then analyzed for the appearance of any words or phrases that aligned with components of each generic category's definition. Mayring (2014) recommends a table to clearly organize categories, definitions, and coding rules when deductive coding is used. Following this recommendation, the coding rules applied to the category of school climate are presented in Appendix B, while the next four paragraphs give a summary of the coding categories used for safety, academics, relationships, and environment.

Statements or questions about physical safety, substance use, emergency response plans, bullying, or resources addressing these concerns were referenced using exact language linked to these concepts, like references to fighting, tobacco, name calling, severe weather, or other similar behaviors or situations. Explicit appearance of the words like rules, discipline, punishment, rewards, and conduct were common. References to specific rules or policies, like truancy, were taken as connected to disciplinary policies and reporting and were therefore included within safety. Following rules often results in recognition or rewards in schools, as well as a positive emotional reaction, so praise of any kind was labeled as safety because of its dual links to discipline and emotional safety. Statements about rules and discipline were often used in survey items that also referenced concepts of fairness or equality. Rules are meant to protect students from harm, but harm may be caused if rules are applied in different ways to different students. Therefore, references to fairness, equality, equity, and diversity were coded as elements of safety because a school that emphasizes these concepts is trying to protect the social, emotional, and physical safety of all members of the school community.

Any references to success were coded as academics because the curriculum and instruction provided by schools should provide the tools necessary for teachers and students to succeed. In modern education, these tools include social-emotional, ethical, and civic knowledge. Understanding or application of these topics can also be elements of relationships, so items were only coded as academics if the statement or questions specifically referenced the teaching of these skills. Classroom and teaching practices or activities like discussions, schoolwork, classwork, or homework and statements that explicitly assessed learning content were always coded as evidence of academics. Expectations for learning, like high achievement, high

standards, high expectations, or the negative equivalents of these ideas were included because they represent measurements of the academic performance of a student or school. References to assessments like tests or grades were also included for the same reason. Any explicit references to professional development or training of teachers were included in academics as components of teacher professionalism. Teacher professionalism, and therefore academics, was also coded for references to collaboration or working together, inclusion in decision-making, and support for other professionals through sharing of time, materials, or expertise linked to teaching. Finally, interpersonal interactions that were linked to job expectations for teachers and administrators, like supporting students academically, addressing the needs of students with individualized education plans, or giving and receiving professional feedback were labeled as evidence of academics.

The relationships category was applied to any statement that directly referenced the definition of this category through words like relationship, connected, care (for a person), community, family, or parent. References to family or parent engagement were coded exclusively as evidence of relationships because any interaction between a family or parent and the school or student relies on the presences of an active relationship between the two parties. Connection and community were also understood to include extra-curricular activities or school events outside of class times. Participating in these activities shows a willingness on the part of students and teachers to engage with each other outside of required interactions, developing nonacademic relationships between students and adults. Care was expanded to include evidence of a personal concern for the well-being of others through friendship, affirmation of value, voluntary presence, conversation, sharing of emotions or interests, and support for non-academic

personal growth. Respect for an individual or group of unspecified make up was also coded as a part of relationships. However, as previously mentioned, diversity falls within the generic category of safety, so if a statement specifically referenced respect for students or teachers of different or varying backgrounds, that statement was coded as safety.

The final general category of environment was coded if statements or questions referenced the physical environment of the school. Concepts like cleanliness, space, lighting, technology, and repairs fit this category. Additionally, the environment is made up of the organizational structure and availability of resources. Organizational structure was understood as the daily operations of a school, like scheduling, and the hierarchy of personnel through differentiated position titles and responsibilities. Materials, supplies, and resources were coded as environment if the question or statement was communicating the general quality, availability, or distribution of such items. The final application of the code for environment was if a question or statement reflected a teacher or student's feelings about the overall experience or atmosphere at school, such as liking school, being proud of school, or feeling dissatisfied with the school as a whole.

After all survey content was coded to fit within the category of school climate, surveys were assessed again to assign codes linked to the second main category of trust. Trust research has provided definitions for each of the generic categories selected through explicit definitions and descriptions using synonymous words. Synonymous codes are drawn from research relating trust and school from the following authors: Adams and Forsyth (2013), Bryk and Schneider (2003), Daly (2009), Hoy and Tschannen-Moran (1999), Payne (2008) Pelmaekers et al. (2014), Combs, Harris, and Edmonson (2015), Romero (2015), Seashore Louis (2007), Seashore Louis

and Murphy (2017), and Schmidt (2010). Words drawn from these definitions and descriptions became subcategories, from which specific word forms were drawn to represent individual codes.

All deductive codes for trust came directly from research, with no alteration to the code other than allowing multiple word forms to be accepted. This means that for the concept of honesty, both the words honesty and honest would be coded to include both active engagement and passive observation of this element of trust. The only words linked to a specific deductive codes that were not coded were negative word forms, like disrespectful, unreliable, or not credible. This decision was made because of the researcher's desire to keep all deductive codes completely grounded in Hoy and Tschannen-Moran's (1999) definition of trust and the language other researchers have established to represent trust. Outside of these basic inclusion and exclusion criteria for deductive coding of the generic categories of trust, the researcher also decided prior to coding that any explicit reference to trust itself would always be coded as trust, regardless of the appearance of other codes in the statement or question. The full list of deductive codes for each of the generic categories included within trust are presented as Appendix C, in a table based on Mayring's (2014) suggestion for presenting coding guidelines.

Current research has not exhausted all possible linguistic representations of each trust factor. For this reason, a second, inductive round of coding was needed to fully analyze the presence or absence of trust factors in school climate surveys administered to teachers and students. After deductive codes were applied to the material, any remaining survey questions or statements were assessed for a possible connection to the five generic trust categories through inductive codes. The sixth generic category of explicit use of the word trust was excluded from

inductive code development because it could only by applied to exact use of the word trust. While a computer based program could have completed deductive coding of each survey, the researcher needed to be completely familiar with the data to identify inductive codes. The process of deductively coding the data simultaneously served as researcher familiarization with uncoded survey items that could contain words or phrases used as an inductive code. Inductive coding also required understanding of each survey item's overall intention, inferred through larger phrases and entire statements, further negating the possibility of computer based coding at this stage because computers do not have the ability to infer (Krippendorff, 2019).

The first round of inductive coding identified statements or questions that had an overall meaning or intention linked to a generic category of trust based on researcher inference and understanding. After possible statements and questions were identified in the first round of inductive coding, each statement was then reviewed to identify the specific word or phrase that indicated a connection to benevolence, reliability, competence, honesty, or openness. Statements drawn from the University of Delaware's (2021) teacher, elementary student, and secondary student school climate surveys illustrate this process:

- "Students *get along with* each other." (p. 3) → Getting along indicates friendship or a mutual desire to be pleasant or enjoy time spent with the other party → Benevolence
- "The consequences of breaking rules are *fair*." (p. 2) → Fairness indicates an agreed upon standard for treatment that is reasonably applied when necessary → Reliability
- "Teachers *listen to* students when they have problems." (p. 2) → Listening implies that one is willing to hear the ideas of another person → Openness

The words and phrases identified as signaling a connection to one of the elements of trust were gathered into a preliminary list, based on initial assumptions of which generic category each word or phrase was connected to. The first round of inductive coding produced a list of possible codes for the category of trust that has been included within Appendix D. Inductive coding must first be over-inclusive, followed by a refinement process that leaves only the most relevant codes remaining for analysis (Drisko & Maschi, 2015). To winnow the list of inductive codes that would be meaningful to the findings of this study, two methods were employed. The first was to remove any codes that appeared only one time across all units of analysis so that such rarely used codes would not be included in the findings (Drisko & Maschi, 2015). This step had minimal impact on the inductive code list, illustrated by the revised list included in Appendix D.

From this slightly reduced list, the researcher began to match each remaining inductive code with a deductive code. Words and phrases selected as inductive codes in this study needed to have meanings synonymous to the deductive codes draw from research. This choice was made to ensure that inductive coding adhered as closely as possible to the already established components of trust, remaining grounded in the research guiding this inquiry. If an inductive code could not be matched with a deductive code sharing a similar meaning, that code was either moved to a different category where meanings could be matched or discarded if no clear connection could be made between the inductive code and a deductive code. Some codes also expanded from single words to short phrases to be more accurately linked with a deductive definition. In some cases, codes with similar phrasing were put into preliminary groups. If a code that appeared a single time fit into one of these meaning groups, it was reincorporated into the inductive code list. The deductive code that was matched to each inductive code in included in

parenthesis following each word or phrase in the final list of inductive codes included in Appendix D.

The researcher recognizes that matching each inductive code to a deductive code with similar use or meaning was an interpretive process and that different connections may be made by readers or other researchers because of variations in usage or meaning. For example, the middle and high school surveys in the Tennessee School Climate Measurement Package (2021) included the statement "Most of my teachers give me individual attention when I need it," (p. 24, 36), from which the inductive code of attention was derived. A student receiving individual attention from teachers could indicate that the teacher is offering support because he or she cares about that student, or individual attention might be given to a student who receives accommodations due to an academic or behavioral plan, or individual attention might be needed because the teacher was not competent enough to scaffold instruction so that content would be accessible to the student independently. The ambiguity of this statement does not indicate any single element of trust more than the others, and so was not included as part of the inductive codes.

9. Pre-testing Categories

This step requires researchers to encode a small portion of the text, between 10 and 50% of the total sample, to ferret out any inconsistencies, unclear expectations, or other difficulties that may impede the researcher or researchers in the coding process (Assarroudi et al., 2018; Drisko & Maschi, 2015; Mayring, 2014). When deductive coding is used, this formative check allows for comparison of the deductive coding framework to the actual data, ensuring reliability between the two (Drisko & Maschi, 2015). Modifications to the coding framework and

categories can be made after test coding a portion of the sample, if necessary (Assarroudi et al., 2018; Drisko & Maschi, 2015; Mayring, 2014).

Initial testing of categories was based on coding of the subsample of surveys intended for teachers. This subsample was specifically chosen because it fit the recommended testing window size, representing 31% of the total sample. Additionally, it was selected under the assumption that it would have the most variety and complexity in language due to the adult audience, therefore allowing the researcher to identify ambiguous or complicated survey items early in the process. Because this study was completed by a single researcher, inter-coder reliability was not possible during this process. However, assessing each survey multiple times can increase reliability (Bengtssen, 2016), so each survey was analyzed for deductive codes at least twice to increase the reliability of this analysis. Coding the teacher surveys first also allowed for the efficient identification of inductive codes that appeared repeatedly and the noting of less frequently used inductive codes. The less frequently seen codes were then given particular attention while coding the elementary and secondary student surveys to see if those codes were indeed frequent enough to be meaningful or discarded due to rarity.

10. Choosing Anchor Samples

Mayring (2014) defines anchor samples as “Concrete passages belonging in particular categories [that] are cited as typical examples to illustrate the character of those categories,” (p. 95). These anchor samples are of course drawn from the material being analyzed and represent typical or exemplary application of each code (Assarroudi et al., 2018; Mayring, 2014). These examples offer guidance during the coding of all content and can give a glimpse into the specifics of some of the texts analyzed. Having clear examples from the analysis also contributes

to transparency in category and code development and increases validity through correct semantical presentation of original data (Drisko & Maschi, 2015; Elo & Kyngäs, 2008; Mayring, 2014).

Anchor samples were primarily derived from specific surveys that were selected because they represented the variety of producers and survey styles present across the whole sample. Chosen surveys were available from the same producer across all three audience groups and were thorough yet manageable in length. The Delaware School Climate Surveys (2021) were selected to represent state level survey producers. For federally produced surveys, The United States Department of Education National Center for Education Statistics' ED School Climate Surveys (2021) were selected. The Panorama Education 360° Climate Surveys Starter Pack (2014) represented the anchor sample for surveys produced by private educational organizations. If none of these surveys provided an anchor example for a specific code, then an anchor sample was drawn from another survey. Anchor samples for school climate domains, deductive trust codes, and inductive trust codes are presented in Appendix F.

11. Completing Main Data Analysis

At this stage, the entirety of the material gathered is analyzed to identify and record all meaning units related to the goals of the study (Assarroudi et al., 2018). The coding of all materials should be based on revised categories and codes derived from the smaller selection of pre-tested materials (Mayring, 2014). When multiple researchers work together, inter-coder reliability tests can also ensure that the data and categories are an accurate synthesis of the data (Assaroudi et al., 2018; Bengtssen, 2016; Drisko & Maschi, 2015 Elo & Kyngäs, 2008; Krippendorff, 2019; Mayring, 2014). In studies such as this one, with only one coder, alternative

methods to ensure reliability must be employed. Drisko and Maschi (2015) suggest that for single coders, “Public justification of the analysis replaces inter-rater reliability, requiring that authors show their readers how the analysis was completed, with many links back to the original texts,” (p. 6). Links between codes and the original texts have already been included via anchor samples for each code. Explanation of how inductive codes were derived also provides connections to the authentic language of the original materials. Both written explanations and appendices clearly illustrate the researcher’s thinking and decision making processes, improving the overall reliability of this study.

Furthermore, to increase reliability and stability of findings, Bengtssen (2016) recommends that single coders repeat the coding process multiple times, starting at different places in the material each time. Each survey was analyzed twice to assign school climate codes, then an additional two times when assigning deductive trust codes, and a final two to three times while analyzing inductive trust codes. Each round of coding was accompanied by extensive notetaking through annotations and research memos. Researchers recommend notetaking in various forms to keep track of questions, changes, and decisions made during the data analysis process (Bengtssen, 2016; Drisko & Maschi, 2015). Notetaking also contributes to the validity of a study because documentation of the data analysis process becomes the basis of a truthful account of each of the steps taken and decisions made by the researcher (Assarroudi et al., 2018; Bengtssen, 2016). Annotations and memos recorded over the course of this study were handwritten directly onto survey documents or in a research journal. An explanation of the annotation process used while analyzing surveys for trust codes is included in the following

paragraphs to increase the validity of the researcher's findings by giving an example of the level of care and thoroughness with which each document was assessed.

Benevolence, reliability, competence, honesty, openness, and trust were each assigned a unique color for annotations. When a deductive code was found in a survey item, it was circled with the color that reflected the generic category to which it belonged. This strategy was found to be clear and effective with the test sample, and so was employed during the main data analysis. Deductive codes were applied first, with all surveys coded by beginning with the first non-demographic survey item. After all surveys were assessed for deductive codes from the beginning, surveys were coded a second time by starting with the final survey item and working backwards to the first item. While coding deductively, the researcher simultaneously annotated possible inductive codes present in each survey by underlining the word or words believed to represent trust in black. Separate notes were also taken to make preliminary connections between an inductive code and a generic category of trust, as well as general comments on frequency and phrasing of possible inductive codes. Any survey items that had multiple codes had both codes marked during these first two rounds of coding.

After coding rounds one and two, each survey was again reviewed with the purpose of finalizing the inductive code list. Using the researcher's list of possible inductive codes generated while deductively coding, inductive codes that were rare were identified using the researcher's notes and subsequently eliminated. The researcher's notes were also revised to reflect best fit generic categories of trust for each inductive code. Once connection to a trust category had been established, a possible inductive code became a confirmed inductive code. Surveys were then read over again, and any underlined words confirmed as inductive codes were

underlined using the color representing the trust factor that code was linked to. During this fifth review of each survey, statements that included a single deductive or inductive code were counted and organized into frequency tables. If a single survey item contained more than one code, the item was assessed for equivalency, contingency, or outcome to determine which code would be counted.

Statements containing two deductive codes were assessed for equivalency. If the two codes had equivalent importance in the statement, the code listed first in the statement counted. For example, the Sacramento City Unified School District's (2022) survey for secondary students included the statement "I am kind and respectful to STUDENTS at school." (p. 10, emphasis in original). In this statement, both kind and respectful could have been coded as evidence of benevolence. Because one word or part of the statement is not contingent on the other, indicating they have equal importance, this statement was coded to match the first code of kindness.

Not all statements with two codes presented the codes as equivalent. Some statements presented contingencies. In this study, the first code, upon which the other code was contingent, was counted. The Kentucky Department of Education (2021) school climate survey for elementary students offers an example of a contingent statement: "If a student reports being treated in a mean or hurtful way, the adults will do something to help." (p. 2). In this statement, the words "reports" and "help" represent inductive codes assigned to different generic categories of trust, being openness and reliability respectively. The ability of a teacher to show they are trustworthy because students can rely on them to help when needed can only be demonstrated if a student *first* feels comfortable sharing that they are being mistreated by another student.

Therefore, the primary indicator of trust in this situation is the environment of openness, and the code “reports” was selected for this statement.

When two codes were present in a survey item, but were neither equivalent or contingent, the codes were evaluated for primary importance. Importance was determined according to which code represented the more active or more visible component of the statement. The State of New Jersey Department of Education’s (2014) survey for secondary students included the statement “Students help decide what goes on in my school.” (p. 6). In this statement, the code “help” indicates reliability and the code “decide” represent openness. In this statement, both the result and the active role of students is represented by involvement in decision making. In this way, any statement linked to decision making was coded as openness even when other codes were present. The same philosophy was applied to coding for family and parents. Any connection between parents or families and schools shows that both parties are open to the presence and engagement of the other. Differences in phrasing of survey items differentiated how this openness may be actively displayed by each party.

12. Inductive Abstraction of Categories from Codes

In this stage of Assarroudi et al.’s (2018) directed content analysis process, initial codes are grouped based on meaning, then placed in categories. This follows the process of abstraction, used when inductive coding occurs, which allows researchers to develop a general description of their research topic through generation of data-based categories (Elo & Kyngäs, 2008). Inductive codes were only included in this study if a clear connection could be made to a research based deductive code already established within one of the generic categories of benevolence, reliability, credibility, honesty, and openness. This improves the reliability of findings in this

study because all data, whether found during deductive or inductive coding, was continuously assessed for alignment with both the research questions and theoretical basis of this study. The final categories presented must reflect the data relevant to the subject of the study for a qualitative content analysis to be credible (Drisko & Maschi, 2015; Elo & Kyngäs, 2008). Because this study ultimately seeks to confirm or extend the research based assumption that trust and school climate are linked, generating completely new generic categories would have distanced the inductive codes from this purpose and detracted from the credibility of the study.

13. Establishment of links between Inductive Generic Categories and Main Categories

Comparison of generic categories and main categories should produce logical connection between the two, allowing generic categories to be placed within the established main categories (Assarroudi et al., 2018). In the case of a study using inductive codes to generate new generic categories, these categories would then need to be reorganized based on similarities and differences to create main categories (Elo & Kyngäs, 2008). In this study, as previously stated, all inductive codes were selected specifically because they showed a connection to the already established generic codes for trust. As such, there is no need for further establishment of a connection between inductively and deductively generated categories.

Reporting

14. Report All Steps & Findings

Steps followed for this study have been explained in full in the above sections, but clear reporting also includes addressing the trustworthiness criteria met by a study (Assarroudi, et al., 2018). A primary source of trustworthiness for directed content analyses is an honest and detailed account of the real challenges, decisions, and results handled by the researcher

(Assarroudi, et al., 2018), as illustrated by the fourteen steps delineated and explained in the Data Sampling and Data Analysis sections. Specific decisions addressing reliability have already been explained within previous steps, like the decision to code each sampling unit multiple times as a replacement for inter-coder checks, as suggested by Bengtssen (2016) and explained in step nine.

Triangulation

Another support for trustworthiness when intercoder checks are not possible is triangulation. Triangulation can decrease researcher bias and provide multiple perspectives on the theory or topic under investigation, which can increase overall validity even if a single researcher is conducting the study by providing a more consistent, objective picture of the phenomena being studied (Cho & Trent, 2006; Renz, Carrington, & Badger, 2018). This study employed data source triangulation, or the gathering of data from different groups to produce multiple perspectives to strengthen study design and interpretations (Carter, Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014; Renz, et al., 2018). This study included surveys gathered from multiple different production groups and intended for multiple different audience groups, a two-pronged application of data source triangulation.

The frequency tables presented in next chapter also lend face validity to this study by presenting information that is clear, with numbers that make sense given the parameters of this study (Krippendorff, 2019). The researcher would also argue that this study holds social validity, as societal concern about schools in general have risen because of the COVID-19 pandemic, and concerns about falling trust level across many social sectors may be reflected in schools (Edelman, 2021; Krippendorff, 2019). The purposes of this study also align with socially valid

research, as practical solutions and increased attention and funding for trust and school climate efforts would be welcome responses to the findings of this work (Krippendorff, 2019).

Limitations

The primary limitation of this research is its reliance on a single researcher for the entire process of coding, especially the creation and counting of inductive codes. A single coder negates the recommended process of inter-coder checks to increase reliability (Assaroudi et al., 2018; Bengtssen, 2016; Drisko & Maschi, 2015 Elo & Kyngäs, 2008; Krippendorff, 2019; Mayring, 2014), which also means there is no inter-coder identification of researcher bias. While measures were taken to ensure that reliability was as high as possible and that researcher bias was minimized, the limitations of single coder research cannot be completely erased. The quantity of surveys and individual items coded was quite large for a single processer, so it is possible that even with procedures to increase reliability in place, some researcher errors in coding and reporting could have occurred.

Also, while the sample size fit recommendations for a qualitative study, it was not inclusive of all teacher and student school climate surveys currently available. The exclusion of surveys requiring specific permission negated the inclusion of multiple surveys that otherwise fit the inclusion parameters used in this study. If this study were to be repeated, inclusion of surveys that require additional permissions to access them could alter the findings, as would the inclusion of international surveys. Additionally, though Hoy and Tschannen-Moran's (1999) definition of trust is widely cited, it is not the only definition of trust referenced in educational research. Other definitions could produce different categories and codes to be used as the foundational components of trust, therefore altering the study's results.

CHAPTER 5

FINDINGS

To make the links between included data and study results clear, researchers may choose to present data using tables or appendices (Assarroudi et al., 2018; Elo & Kyngäs, 2008). Tables presenting frequency counts for all data relevant to answering this study's research questions of "What differences in frequency and context of trust dimensions exist between student surveys and teacher surveys?" and "How are survey items related to trust dispersed across the domains of school climate?" are included below. These tables represent the generic categories of trust separately, with the frequency of each code within that subcategory delineated by appearance in teacher, elementary student, or secondary student survey. A frequency count representing the subcategories of school climate is also included for each code. In the school climate column, "S" represents the subcategory of safety, "A" represents the subcategory of academics, "R" represents the subcategory of relationships, and "E" represents the subcategory of environment.

Deductive Coding Results

Table 2. Frequency Counts of Deductive Codes for Benevolence

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Benevolent, Benevolence	0	0	0	0	n/a
Respect, Respected, Respectful, Respectfully	29	15	32	76	S: 26 A: 1 R: 49
Care, Cares, Caring	12	14	22	48	S: 1 A: 4 R: 41 E: 2

Concern (for, about)	3	1	1	5	S: 3 R: 2
Friend, Friends, Friendly	4	6	21	31	S: 1 R: 30
Kind, Kindness, Kindly	0	1	3	4	R: 4
Total Frequencies	48	37	79	164	S: 31 A: 5 R: 126 E: 2

Table 3. Frequency Counts of Deductive Codes for Reliability

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Reliability, Reliable, Rely on, Count on	0	0	0	0	n/a
Stable, Stability	0	0	0	0	n/a
Predict, Predictable	0	0	0	0	n/a
Dependable, Depend on	0	0	0	0	n/a
Follow, Followed	3	2	7	12	S: 10 A: 2
Confidence in, Confident in	6	0	5	11	A: 8 R: 3
Total Frequencies	9	2	12	23	S: 10 A: 10 R: 3 E: 0

Table 4. Frequency Counts of Deductive Codes for Competence

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Competence, Competent	1	0	0	1	A: 1
Able, Ability	1	0	3	4	A: 1 R: 3
Expert, Expertise	0	0	0	0	n/a
Accuracy, Accurate	0	0	0	0	n/a
Skill, Skills, Skilled	4	0	2	6	A: 5 R: 1
Total Frequencies	6	0	5	11	S: 0 A: 7 R: 4 E: 0

Table 5. Frequency Counts of Deductive Codes for Honesty

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Honesty, Honest	0	0	1	1	R: 1
Integrity	0	0	0	0	n/a
Credibility, Credible	0	0	0	0	n/a
Transparency, Transparent	0	0	0	0	n/a
Authenticity, Authentic	0	0	0	0	n/a
Character	0	0	0	0	n/a
Truthful, Truth	0	1	2	3	S: 3
Total Frequencies	0	1	3	4	S: 3 A: 0 R: 1 E: 0

Table 6. Frequency Counts of Deductive Codes for Openness

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Openness, Open	0	0	1	1	R: 1
Communicate, Communicates, Communicated, Communication, Communications	13	0	2	15	S: 4 A: 6 R: 5
Share, Shares, Shared, Sharing	1	1	5	7	S: 1 A: 3 R: 1 E: 2
Total Frequencies	14	1	8	23	S: 5 A: 9 R: 7 E: 2

Table 7. Frequency Counts of Explicit References to Trust

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Trust, Trusting	6	0	6	12	A: 1 R: 11
Total Frequencies	6	0	6	12	S: 0 A: 1 R: 11 E: 0

Inductive Coding Results

Table 8. Frequency Counts of Inductive Codes for Benevolence

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Like	7	10	10	27	A: 1 R: 7 E: 19
Get Along	7	6	11	24	S: 3 R: 21
Praise, Reward, Recognition, Recognize	13	4	10	27	S: 27
Encourage, Encouraging	10	2	10	22	S: 1 A: 12 R: 7 E: 2
Support, Supports, Supportive, Supported	22	1	5	28	S: 1 A: 15 R: 10 E: 3
(Others want me to) Do Well	3	5	3	11	A: 10 R: 1
Treat Well	0	3	1	4	R: 4
Work Well, Work Together	5	0	1	6	R: 5 E: 1
Welcome, Welcoming	0	1	5	6	R: 5 E: 1
Feel Good	0	0	2	2	R: 2
Protect	0	0	2	2	R: 2
Total Frequencies	67	32	60	159	S: 32 A: 37 R: 64 E: 26

Table 9. Frequency Counts of Inductive Codes for Reliability

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Fair/Fairly	15	10	23	48	S: 48
Equal/Equally	2	0	8	10	S: 10
Same	2	2	7	11	S: 11
Always	2	0	0	2	S: 2
Consistent, Consistently	2	0	1	3	S: 3

Responsible, Responsibility	1	2	2	5	S: 3 A: 2
Help, Helpful, Helping	17	17	37	71	S: 16 A: 34 R: 20 E: 1
Taken care of, Take Action, Handle, Fix	3	3	4	10	S: 8 E: 2
Go to	0	2	4	6	S: 5 R: 1
Total Frequencies	44	36	86	166	S: 106 A: 36 R: 21 E: 3

Table 10. Frequency Counts of Inductive Codes for Competence

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Grade, Grades (good, high), Earn As	2	3	5	10	A: 10
Success, Successful, Succeed	8	2	5	15	A: 15
Achieve, Achievement	3	0	2	5	A: 5
Effective, Effectively	9	0	2	11	S: 7 A: 4
Evaluate, Evaluated, Evaluation	5	0	0	5	A: 4 E: 1
Prepared	2	1	2	5	A: 5
Test, Testing	5	0	0	5	A: 5
Graduate (HS)	0	0	2	2	A: 2
Solve, Good at Solving, Resolve	0	3	3	6	S: 2 A: 4
(I) Do Well, Perform Well	0	4	6	10	A: 8 R: 1 E: 1
Total Frequencies	34	13	27	74	S: 9 A: 62 R: 1 E: 2

Table 11. Frequency Counts of Inductive Codes for Honesty

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Clear, Clearly	11	5	12	28	S: 25 A: 3
Good Example	1	1	1	3	A: 3
Total Frequencies	12	6	13	31	S: 25 A: 6 R: 0 E: 0

Table 12. Frequency Counts of Inductive Codes for Openness

Code(s)	Teachers	Elementary Students	Secondary Students	Total Frequency	School Climate
Listen to, Listening, Be Heard	3	5	14	22	S:1 A: 1 R: 20
Talk to, Talk with	1	8	12	21	S: 6 A: 3 R: 12
Decisions, Decide, Decision Making	8	1	5	14	A: 14
Comfortable	5	2	6	13	S: 2 A: 5 R: 6
Available, Availability	2	0	3	5	A: 2 R: 3
Chance to Tell/Explain, Opportunity to Explain	2	2	9	13	S: 7 A: 6
Express	1	0	4	5	A: 5
Report	2	3	9	14	S: 14
Know, Get to Know, Let (me) Know	9	9	22	40	S: 27 A: 5 R: 8
Join, Participate in, Get Involved in (Extra-Curriculars)	1	1	3	5	A: 5
Feedback	7	0	2	9	A: 8 E: 1
Total Frequencies	66	36	96	198	S: 59 A: 56 R: 82 E: 1

Combined Results

This study found that all five faces of trust appeared across the complete sample of teacher and student surveys. From the total frequencies of deductive codes for each of the five faces of trust and the use of trust itself, this study found that research based, deductive codes indicating the presence of one of the five faces of trust or trust itself appear 236 times out of 1,955 total questions. This means that elements of trust deduced from research or the appearance of trust itself were included in 12.07% of school climate survey items analyzed in this study. Inductive codes also indicate that questions assessing all elements of trust are present in teacher and student school climate surveys. In all, inductive codes generated in this study were counted 628 times, representing the presence of an inductive code linked to trust in 32.12% of questions across all surveys sampled. When combining deductive and inductive codes, benevolence was counted 323 times, reliability was counted 189 times, competence was counted 85 times, honesty was counted 35 times, and openness was counted 220 times. Trust, which was only coded deductively, appeared 12 times. Appearance of all codes utilized in this study amounted to 864 codes counted, meaning a code connected deductively or inductively to trust was present in 44.2% of questions on teacher and student school climate surveys in this study's sample.

Frequency counts do not consider the disparities in sample size for each audience group. In this study, there were 12 teacher surveys, 10 elementary student surveys, and 17 secondary student surveys. An alternate representation of the differences in frequency of trust dimensions is to consider the appearance of codes within each dimension of trust as a percentage of the total number of questions analyzed for each audience group, presented in Table 13. Similarly, total

distribution of school climate domains within deductive trust codes, inductive trust codes, and the combination of both are summarized as percentages in Table 14.

Table 13. Code Frequencies as a Percentage of Overall Questions for Each Audience Group

48 deductive codes for benevolence in teacher surveys

589 total items assessed in teacher surveys

Audience	Teacher		Elementary		Secondary	
Code Type	Deductive	Inductive	Deductive	Inductive	Deductive	Inductive
Benevolence	8.15%	11.38%	10.91%	9.44%	7.69%	5.84%
Reliability	1.52%	7.47%	0.59%	10.62%	1.17%	8.37%
Competence	1.02%	5.77%	0.00%	3.83%	0.49%	2.63%
Honesty	0.00%	2.04%	0.29%	1.77%	0.29%	1.27%
Openness	2.38%	11.2%	0.29%	10.62%	0.68%	9.35%
Trust	1.02%	N/A	0.00%	N/A	0.58%	N/A
Total by Code Type in Each Audience Group	14.09%	37.86%	12.09%	36.28%	10.91%	27.46%
Combined Total Appearance of Codes in Each Audience Group	51.95%		48.37%		38.43%	

Table 14. Frequencies and Concentrations of Trust Codes within Each School Climate Domain

Domain	Deductive Trust Codes		Inductive Trust Codes		All Trust Codes	
Safety	49	20.76%	231	36.78%	280	32.41%
Academics	32	13.55%	197	31.37%	229	26.50%
Relationships	152	64.41%	168	26.75%	320	37.04%
Environment	4	1.69%	31	5.09%	36	4.17%

From these findings, three themes arose. Two of these themes answer the first research question of "What differences in frequency and context of trust dimensions exist between student surveys and teacher surveys?". First, the trust factor of benevolence is the most frequent and most accurately represented element of trust across all three audience groups. Second, all subsequent components of trust included in school climate surveys are infrequent or inaccurately

framed, therefore offering limited insight into trust levels. In response to the second research question of "How are survey items related to trust dispersed across the domains of school climate?" one additional theme developed. The third theme is that when all items coded for trust are analyzed, trust items are not significantly skewed towards any particular school climate domain, though deductive coding shows a significant concentration within the domain of relationships. The next chapter will elaborate on each theme to illustrate the importance of these findings.

CHAPTER 6

DISCUSSION

It was the intention of this inquiry to determine if a concrete, wholistic connection existed between elements of trust and school climate. Findings and emergent themes indicate that a tenuous connection does exist between trust and school climate according to school climate surveys, though this connection is contingent upon specific components of trust and school climate rather than encompassing trust and school climate wholistically. This section will first address the two themes related to the frequency and context of appearance of elements of trust in answer to the first research question by interpreting the strength of benevolence as an indicator of trust and the inconsistencies found in all other trust factors. This section will then address the second research question through explanation of the final theme, related to the dispersal of trust elements across each domain of school climate.

Frequency and Context of Trust Elements

Benevolence

The high frequency and accurate framing of items related to benevolence aligns with the definition of trust used to guide this study, as Hoy and Tschannen-Moran (1999) list benevolence first and described it as “The most common face of trust” (p. 187). This is likely because benevolence can be immediately measured through initial interactions between two parties, then confirmed or adjusted by further interactions. Benevolence also benefits from simple, common language for both deductive and inductive codes, further lending itself to easy, consistent

measurement across student and teacher groups. The high frequency of codes for benevolence indicates that positive interpersonal interactions are foundational for both trust and school climate. Components of other trust elements, like reliability and openness, also seem to be related to an overall sense of benevolence between school groups through items related to behavior. While Hoy and Tschannen-Moran's (1999) definition of trust lists all five faces equivalently, the findings of this study indicate that benevolence may in fact be significantly more important to trust for teachers and students.

Respect

The word most frequently used to assess benevolence on school climate surveys for both teachers and students was respect, demonstrating that perceptions of respect were key to assessing school climate while simultaneously indicating trust for all groups. Respect was always framed as interactions between two groups, as necessitated by Hoy and Tschannen-Moran's (1999) definition, though the demonstrator and recipient of respect did vary between survey groups. While a common assumption is that students, or children in general, must respect adults, this was one of the least commonly assessed demonstrations of respect. Questions about respect on student surveys mostly addressed students as the recipients of respect, either from peers or from adults in their building. This pattern in questioning is promising for measuring trust, as Ennis and McCauley (2002) found that students felt teachers were more deserving of trust when the teachers showed care and respect towards students.

Teacher survey items were more equal in their treatment of students or adults as the recipients of respect. Teacher surveys' treatment of respect aligns more closely with the necessity of mutual investment as the foundation for building trust (Hoy & Tschannen-Moran,

1999). For example, The Tennessee Department of Education's (2021) teacher survey included four coded items related to respect: "Students at this school respect each other's differences." (p. 55), "Teachers and other adults at this school treat all students with respect." (p. 55), "Teachers and other adults at this school treat each other with respect." (p. 56), and "Teachers and other adults at this school treat parents with respect." (p. 57). There was also an item, not coded as a part of this study because of its negative phrasing, that said "I think that students at this school are disrespectful to teachers and other adults." (p. 58). These items frame student to student and adult to adult trust as mutual exchanges between the groups, building trust within groups. The inclusion of a statement about teachers respecting students and students being disrespectful to teachers recognizes that respect must also flow between both parties. Altogether, the variety of ways that the Tennessee survey assesses respect, with acknowledgement of its intra and inter group roles, presents a more accurate picture of how respectful interactions contribute to a more trusting school environment.

Care, Friendship, and Kindness

Other codes connected to benevolence, including care, friendship, and kindness, were more common in student surveys than teacher surveys. Items about care, regardless of survey audience, most often asked about demonstration of care from teachers to students. Teachers who are caring towards students show that they are interested in and responsiveness to students as individuals or as a group, which can increase student trust in their teachers (Mitchell et al., 2018; Wooten & McCroskey, 1996). Though less common, most of the remaining items assessing care asked about perceptions of care between students, which can contribute to collective trust within a school. Trust of and between peers and adults creates collective trust, and when collective trust

is present in schools it can positively impact the academic performance and behavior of students (Adams, 2014; Bryk & Schneider, 2003). The University of Delaware's (2021) student surveys at both the elementary and secondary levels include five items assessing care, the elementary survey includes statements of "Teachers care about their students." (p. 2), "Students care about each other." (p. 2), "Adults who work here care about the students." (p. 3), "Students are taught they should care about how others feel." (p. 4), and "I care about how others feel." (p. 5). This represents one of the most extensive assessments of care on student or teacher surveys and illustrates how a survey can address care between and within school groups to elicit a more reliable measure of this impactful component of benevolence and therefore trust.

Student surveys only assessed friendly behaviors or relationships between students, and the few appearances of codes for friendship that appeared in teacher surveys were evenly split between assessing friendships between students and friendly behavior between teachers and administrators. Poor social relationships and behaviors that prevent building friendships in a school environment can indicate low trust (Payne, 2008; Seashore Louis 2007), but the lower frequency of items related to adult friendships may be due to professional setting rather than poor trust because work environments may not be a primary source of personal friendships for adults. Low measurement of friendship between teachers is not necessarily indicative of low trust, as professional interactions in schools still offer chances for socialization and community engagement during the school day or at school events. High trust environments further promote teacher socialization because adults care for each other and the school community (Adams & Forsyth, Seashore Louis, 2007). Inductive codes like "get along with" or "work well with" offer a more flexible assessment of relationships between teachers or with administrators that are still

grounded in the concept of benevolence but offer a more appropriate blend of personal and professional investment in the relationship. The Georgia Department of Education (2019) teachers survey is an excellent example of this. It has six questions grouped to measure staff connectedness, including three coded statements of "I feel supported by other teachers at my school." (p. 2), "I get along well with other staff members at my school." (p. 2), and "I feel connected to the teachers at my school" (p. 2), along with items that were not coded and ask about feeling important, enjoying working in teams, and fitting in among the staff. These items all assess a positive, professional working environment using terms connected to benevolence but do not assume deeper personal relationships between coworkers in the way that the term friendship would.

Support and Praise

Another group of codes that contributed significantly to benevolence's high frequencies and overall importance included references to inductive codes for support and recognition or praise. Though not strictly drawn from research, connections to trust research can be made to these codes to illustrate their potential contributions to trust measurement. Five of the six references to support found in student surveys asked about adult support for students, like Panorama Education's (2021) elementary survey question asking "How much support do the adults at your school give you?" (p. 21). All references to praise, rewards, and recognition in student surveys placed students as the recipients. For example, the United States Department of Education National Center for Education Statistic's (2021) secondary student survey includes the statement "My teachers praise me when I work hard in school." (p. 12).

Nearly half of the items regarding support on staff surveys were linked to teachers supporting students, which could manifest as praise or recognition. In teacher surveys, items relating to praise or recognition placed students as the recipients around two thirds of the time, like “Students are praised often.” and “Students are often given rewards for being good.” (University of Delaware, 2021, p. 4). Support from a teacher can build trust with students, especially when teachers work cooperatively with them to build student knowledge, by increasing interaction and providing opportunities for teachers to demonstrate responsiveness and care for students (Ennis & McCauley, 2002; Mitchell et al., 2018; Wooten & McCroskey, 1996). Students who trust their teachers are more likely to perform well academically, which increases opportunities for praise from teachers (Adams, 2014; Romero, 2015).

Because most of the focus is on students in items coded as support or praise, it seems that school climate surveys assume that support and praise are unnecessary or low-impact for teachers. This is untrue when it comes to trust. Supporting students’ needs shows professional commitment and ability, which can increase trust between teachers (Tschannen-Moran, 2009). Some teacher survey questions address teacher feelings of support, like the questions “When you face challenges with particular students, how supportive are the families?” (p. 26) and “When you face challenges at work, how supportive are your school leaders?” (p. 27) in the Panorama Education (2021) teacher and staff survey. Supportive relationships with other school stakeholders can contribute to high trust because teachers who feel supported by their colleagues’ words and actions are more likely to feel that they belong to a collective group at school (Adams, 2008). Support and professional encouragement for teachers could take the form of cooperation between teachers, learning from colleagues, engagement with the school

community, and communication and sharing of knowledge and resources, which are all actions can positively contribute to teacher trust (Adams, 2013; Payne, 2008; Tschannen-Moran, 2009; Tschannen-Moran & Gareis, 2015; Wang & Bird, 2011).

Other Faces of Trust

The remaining four faces of trust give little indication of being valuable measures of student or teacher trust on school climate surveys. While elements of trust like openness and reliability were frequently coded on surveys, deeper examination of these codes often failed to meet the qualifications for trust building. Honesty and competence were so rarely coded compared to benevolence, and even compared to openness and reliability, that their contributions to trust cannot be accurately measured by school climate surveys for students and teachers.

Openness

Trust building interactions often incorporate communication between the two parties; however, deductive codes for communication were not an effective measure of trust on school climate surveys. Items coded as communication were most common on teacher surveys, and were nearly always linked to occasion, frequency, or quality of communication with parents or families. The teacher survey produced by the University of Delaware (2021), for example, asks if "Teachers do a good job communicating with parents." (p. 2). Reference to parents and families was the largest inductive code for openness on teacher surveys. Teacher trust of families can have positive impacts on schools (Adams, 2013; Adams & Forsyth, 2009; Hoy & Tschannen-Moran, 1999; Tschannen-Moran, 2009), but school climate surveys rarely measured parent contributions or responses, lending a sense of one-sidedness to communication and family presence in schools that is not necessarily indicative of mutual openness and trust.

Consideration of other deductive codes for openness, like sharing, addressed teacher and student trust. Sharing was the sole non-communication code for openness in teacher surveys, while student surveys had multiple items coded as sharing and one item coded as open. All student survey codes representing openness assessed whether students felt comfortable sharing their own ideas and opinions or hearing the ideas and opinions of others, like the statement "My teachers encourage students to share their ideas about things we are studying in class." (p. 3) in the State of New Jersey Department of Education's (2014) secondary student survey. Creating space for students to share their ideas, opinions, and interests can build trust when teachers incorporate student ideas as a part of decision-making and negotiations within the classroom, or when the opinions and interests of students are reflected in content and classroom activities because this shows that teachers value and care about their students (Ennis & McCauley, 2002; Liang et al., 2019; Thornberg & Elvstrand, 2012). Deductive codes for openness like sharing present a stronger measure of trust because of the implied openness between teachers and students as both giving and receiving ideas, but these codes were so infrequent that they are not an effective measure of trust across school climate surveys.

Inductive codes for openness like talking, listening, reporting, and general comfort level between teachers and students were much more frequent across both teacher and student surveys. Many of these codes specifically link to communication about problems or concerns, indicating a degree of trust between students and their teachers. For example, the secondary student survey from the United States Department of Education National Center for Education Statistics (2021) includes the item "I can talk to a teacher or other adult at this school about something that is bothering me." (p. 13). Student problems may link to safety concerns at home or in school,

which students are more likely to report if they trust their teachers (Mitchell et al., 2018). Knowing, in the sense of knowing another person well or knowing about another person, was also an inductive code for openness concentrated in student surveys. However, only 20% of coding for knowing referenced interpersonal exchange, so it was not a valuable contributor to overall measurement of openness as a part of trust.

Reliability

Connections to rules dictated the presence of codes for reliability across school climate surveys while simultaneously negating connections to trust. In deductive coding, evidence of reliability stemmed solely from following rules, like the University of Delaware's (2021) elementary survey statement "Most students follow the rules." (p. 3). All student survey items and one third of teacher survey items coded as follow referencing students following rules. Items addressing whether teachers followed the rules were rare, which could undermine assessment of trust for older students who base trustworthiness of adults more on teacher actions and interactions than status or age (Thornberg & Elvstrans, 2012).

Only measuring students' ability to follow rules is not an accurate measure of mutual reliability because it completely ignores whether adults are reliable members of the school community. Furthermore, students may follow rules out of fear rather than trust when control measures like loss of privileges or exclusion from the classroom community are used (Adams & Forsyth, 2013; Ennis & McCauley, 2002). A teacher's use of relationship based discipline can increase trust with students and improve student behavior at elementary and high school levels (Adams, 2014; Adams & Forsyth, 2013; Ennis & McCauley, 2002; Murray & Zvoch, 2011; Romero, 2018), but only one survey producer included a question related to teacher disciplinary

responses. The Kentucky Department of Education (2021) elementary and secondary student surveys include the statement “Adults from my school stay calm when dealing with bad behavior.” (p. 2). This item assesses reliability even though it did not contain any terms coded for this study because it asks whether students can rely on teachers to react in the same way each time something goes awry in class. Responding in a predictable, calm way may indicate to students that their teacher is worthy of trust because that teacher is demonstrating perseverance in building positive relationships even when students act badly (Ennis & McCauley, 2002).

Inductive codes for the ideas of fairness, equality, and sameness were similarly linked to rules and behavior, accounting for 40% of inductive codes for reliability. Three quarters of these codes came from student surveys, but regardless of which survey these codes were found in, they all referenced students as the recipients of fair, equal, or same treatment from teachers, peers, or rules in general. This is illustrated by student survey items like “Classroom rules are fair.” (University of Delaware, 2021, p. 3), “I feel like adults in this school apply the same rules to all students equally.” (Tennessee Department of Education, 2021, p. 42), and “Discipline is fair.” (United States Department of Education National Center for Education Statistics, 2021, p. 14). When considering the strength of connection between these concepts and trust, it is important to recognize that fair is not synonymous with equal and same. Teachers must be responsive to the individual needs and situations of their students to be trusted (Mitchell et al., 2018; Wooten & McCroskey, 1996), with older students in particular looking for evidence of a teacher’s willingness to participate in fair negotiations with students as a basis for building trust (Thornberg & Elvstrand, 2012). While fair treatment may allow for some flexibility in response, equal or same treatment does not. Students may be able to rely on equal or same treatment from

teachers or peers, but this does not necessarily indicate trust because strict adherence to rules may undermine other trust factors like student perceptions of benevolence or openness.

Reliability and openness further overlap in their impact on trust when considering the many new procedures and rules schools have implemented during the COVID-19 pandemic. Teachers with confidence in their leadership to communicate and uphold safety measures certainly feel more trust for those leaders during these tumultuous times, yet there were no survey questions addressing the reliability of leadership on school climate surveys. Trust can act as a mitigator of teacher burnout (Van Maele & Van Houtte, 2015), a particularly powerful tool given the increase in teachers feeling burnt-out or wanting to leave the profession after teaching during the pandemic.

Honesty

Qualities of honesty drawn from research are completely absent from teacher surveys. Only the Georgia Department of Eduction (2019) secondary student survey asks students if "Honesty is an important trait to me." (p. 4), but this statement does not make a clear connection to another group, like teachers, to frame honesty as a component of trusting relationships. Inductive codes for honesty produced higher frequencies because of the presence of codes for clarity, but these codes were directly connected to clarity of rules and did not reflect Hoy and Tschannen-Moran's (1999) requirement of engagement between two groups. The same lack of interpersonal interaction nullifies the three coded statements referencing truth in student surveys. The University of Delaware's (2021) student surveys include the statement "I am telling the truth in this survey." (p. 6), which may assess the honesty of the individual student, but not whether they feel their peers or teachers are truthful with them.

Competence

Deductive codes for competence addressed social-emotional competence, while inductive codes focused on academic competence. The Sacramento City Unified School District (2022) surveys assessed students' emotional skills or abilities with statements like "I am able to clearly describe my feelings." (p. 11). The teacher survey also included "My principal models social and emotional competence in the way that he/she deals with students and faculty on an everyday basis." (Sacramento City Unified School District, 2022, p. 9). Inductive codes for competence were close to evenly split between teacher and student surveys and were nearly all academic. This aligns with research findings that competent teachers offer multiple opportunities to demonstrate learning, hold high expectations, and present challenging material with supports, all of which can increase student success and build student trust (Bryk & Schneider, 2003; Ennis & McCauley, 2002; Liang et al., 2019; Romero, 2015). This stark difference in the context of deductive and inductive codes leads to the question of whether social-emotional competence and academic competence may in fact represent distinct components of competence that each require independent measurement to accurately assess trust levels.

Trust

Trust as an explicit code appeared rarely but in equal quantities on teacher and student surveys, though student surveys only referenced trust at the secondary level. Teacher surveys only addressed trust between adult groups like inter-staff trust or trust of parents through statements like "This school promotes trust and collegiality among staff." (Sacramento City Unified School District, 2022, p. 6). Trust amongst teachers and administrators has been linked to increased professionalism, improved sense of self-efficacy, and higher perceptions of staff

commitment to students and the school community (Adams & Forsyth, 2009; Hoy & Tschannen-Moran, 1999; Tschannen-Moran; 2009; Tschannen-Moran & Gareis, 2015; Wang & Bird, 2011). Student surveys asked about trust between students with items like "Students at my school trust each other." (Tennessee Department of Education, 2021, p. 37), while student trust of teachers was included with statements like "At my school, I trust my teachers." (Iowa City Community School District, 2021, p. 5), and teacher trust of students was assessed with "Teachers and staff at my school trust students to make good choices." (Washoe County School District, 2021, p. 3). Trust between teachers and students can touch every aspect of a school environment by reflecting strong relationships, increasing academic performance, and reducing negative behaviors at both the elementary and secondary levels (Adams, 2014; Bryk & Schneider, 2003; Murray & Zvoch, 2011; Romero, 2015).

Dispersal of Trust Across School Climate Domains

Survey items were mostly dispersed across the school climate domains of safety, academics, and relationships. The one domain of school climate that shows little outright connection to trust is the domain of environment, with items in this domain overwhelmingly linked to inductive codes for benevolence, representing statements or questions assessing the overall atmosphere of a school. Atmosphere could be understood as a result of the combined experiences and relationships of members of a school community, but these contributing factors to atmosphere were coded into other school climate domains if they referenced a specific interaction or experience linked to relationships, safety, or academics.

Relationships

Analysis of deductive codes shows a strong connection between trust factors and the school climate domain of relationships. The domain of relationships matched with nearly 65% of deductive codes for trust, with benevolence being the facet of trust contributing the most items. The strength of this connection is logical given that trust is built when two different people or groups engage with each other over time, just as regular interaction over time is a simple definition of a relationship. Schools with positive climates rely on relationships because they are collaborative, engaged communities (Cohen, et al., 2009; Tschannen-Moran & Gareis, 2015; Thapa et al., 2013**;** Zullig et al., 2011). Working together within a school and in the surrounding community is easier when people demonstrate trustworthiness through kind, friendly, and respectful interactions. These same traits also put people at ease and reduce conflict, explaining why benevolence was also the most common contributor to safety, which was the school climate domain with the second highest frequency for deductive trust codes.

Safety

Inductive coding had a stronger connection to safety. The element of trust that most contributed to safety was reliability, with over 100 inductively coded items categorized as examples of safety. This undoubtedly comes from the connection between rules and high frequency codes like fair, equal, and same. The way students perceive their school environment can influence how they choose to behave (Koth, et al., 2008), so environments that are seen as fair or where students are treated equally may better protect students' physical and emotional safety. The trust element that contributed the second highest frequency of inductive codes for safety was openness. Knowledge, most often coded for items connected to knowing rules,

produced about half of the inductive openness codes connected to safety. This shows that even across different domains of trust, emphasis on.

Academics

Academics was the second most common school climate domain for inductive codes, and the third for deductive codes. Schools have many other tools with which to measure academic performance, so it is unsurprising that academics fell on the low end for connection to trust. Competence was the main contributor to academics during inductive coding, followed by openness. These two elements of trust comfortably align with academics given that classroom instruction and student demonstration of understanding relies on the skills of and communication between students and teachers. The domain of academics had a more balanced composition of deductive trust codes, drawing from competence, openness, and benevolence in similar frequencies. This combination of multiple trust elements within the domain of academics, particularly the inclusion of openness and benevolence, lends credence to the perspective that students' academic performance is a result of a combination of social, emotional, and academic processes, not just the quality of content or individual skill (Darling-Hammond & Cook-Harvey, 2018).

CHAPTER 7

CONCLUSION

Research on trust in schools presents a variety of components necessary for trusting relationships, but there is no clear hierarchy of importance to indicate which elements of trust might be most important to students or teachers. Literature reviews of school climate research claim that trust and school climate are connected through relationships and academics (Bradshaw et al., 2014; Cohen et al., 2009; Darling-Hammond & Cook-Harvey, 2018; Thapa et al., 2013; Tschannen-Moran & Hoy, 1998; Wang & Degol, 2016), but do not go beyond broad statements to explain the strength or importance of this connection. The goal of this study was to find a more concrete connection between school climate and trust using the language present in school climate survey items drawn from teachers and student surveys. Measuring the overall presence of trust elements and the distribution of those elements within school climate domains was presumed to confirm a connection and elaborate on its strength or concentration across the many facets of trust and school climate. It becomes clear when analyzing these surveys that not all elements of trust are equal, and that their connection to school climate does not fully align with school climate researchers' assumptions.

While previous research has made a connection between trust and the school climate domains of relationships and academics, the school climate domain of safety has not been explicitly linked to trust. In this study, however, the school climate domain of safety was more strongly connected to trust than academics. Almost 70% of all items coded in this study fell

within the school climate domains of relationships and safety. Academic measures are most often used to judge the performance and implied value of schools and their community members. Good school climate and high trust have both been shown to improve academic outcomes for students (Adams, 2014; Adams & Forsyth, 2013; Berkowitz et al., 2017; Bryk & Schneider, 2003; Cohen et al., 2009; Ennis & McCauley, 2002; NCSSLE, 2021; Sherblom, et al., 2006; Romero, 2015; Tschannen-Moran & Gareis, 2015; Thapa et al., 2013; Wang & Degol, 2016), but starting improvement efforts by focusing on academic reforms may not be the most effective way to raise students' academic achievement. Focusing improvement efforts on the domains of relationships and safety will improve trust and school climate, laying the foundation upon which academic success can then grow.

For trust to increase for students and teachers, schools should look first to the level of benevolence demonstrated within their community. This study strongly indicates that benevolence is the most often assessed component of trust, implying that benevolence is the most often observed and the most important component of trusting interactions for teachers and students. This is not necessarily surprising, given that evidence of care was linked to not only better relationships for teachers and student but also to improved student learning and behavior in trust research (Adams & Forsyth, 2009; Arslan & Polat, 2016; Ennis & McCauley, 2002; Gregory & Ripski, 2008; Hoy & Tschannen-Moran, 1999; Karakuş & Savaş, 2012; Mitchell et al., 2018; Murray & Zvoch, 2011; Liang et al., 2014; Payne, 2008; Seashore Louis, 2007; Wooten & McCroskey, 1996). What does come as a surprise, however, is the lack of reliable evidence for all four of the other faces of trust in school climate surveys. Hoy & Tschannen-Moran's (1999) definition of trust derived from educational research clearly indicates that all

five faces are necessary for trust to form for teachers. Given the lack of items measuring reliability, competence, honesty, and openness on teacher and student surveys, one is left to either assume that these four elements are not in fact necessary for trust, or that they are necessary but have been ignored on school climate surveys. This researcher is inclined to believe the latter, based on the significantly higher presence of these four components of trust in inductive coding. Inductive coding offers a greater possibility for measuring the larger variety of ways in which each of these categories could present to students or teachers, but inductive codes lack the validity and value that traits acknowledged in research have. Alternative trust definitions, specifically one aimed at students if available, may strengthen support for some inductive codes, increasing the likelihood that school climate surveys could measure trust more completely.

As they are written now, school climate surveys only give broad, partial conclusions about overall trust levels for students and teachers. Intentional review and revision of surveys to include items backed by trust research that explicitly address all five faces of trust is necessary before school climate surveys can be considered a reliable measure of trust. Additionally, research that expands understanding of how each trust element may be defined by different parties within schools may inform these revisions, as there are some small but noticeable differences in the frequency of different trust elements between teacher, elementary student, and secondary student surveys. These revisions would be worthwhile given that the overall frequency of items indicating a partial measurement of trust are clearly connected to school climate through the domains of relationships and safety, and that all aspects of trust and school climate are known to have wide ranging, positive impacts on students and teachers.

Implications for Research and Practice

Vast inconsistencies in the frequency of items related to benevolence, reliability, competence, honesty, and openness make it impossible to get a clear measure of trust from the school climate surveys analyzed for this study. However, this study assessed surveys as a whole body of work rather than addressing each survey as its own unique representation of trust elements. Individual analysis of school climate surveys would be a valuable avenue of exploration for future research, both for its contributions to academic understanding of the connection between trust and school climate but also for its practical implications. It is possible that one or more of the surveys sampled for this study does contain items related to all five faces of trust and may be useful in saving scholars and schools resources as a single tool with results that could be analyzed in multiple ways. This would assume that beyond just containing each of the five faces of trust, a single survey would also frame each face accurately as an interpersonal or intergroup interaction, which was uncommon in the overall synthesis of items counted for reliability, competence, honesty, and openness in this study. This makes it more likely that such a survey does not currently exist, and a future research project with high practical value could seek to create and test a survey tool to accurately measure both school climate and trust.

Future research and creation of materials could continue to apply the definition of trust used for this study or could use a different definition of trust to produce comparable findings. This would be helpful in determining the value of inductive codes. If other definitions of trust reference some of the inductive codes or concepts used in this study, they would have more reliability as evidence of trust in survey items because they would be applied as research backed deductive codes instead. It would be valuable to explore definitions of trust created or

understood by teachers and students as well, since they are the respondents assessing the presence or absence of trust in their schools and may view trust differently than those approaching from a research lens. A new, trust specific survey tool could be created from collaboration between teachers, students, and researcher; or these alternate definitions could be used to reassess school climate surveys in a replication of this study.

Another area in need of research attention is the role of each specific facet of trust or domain of school climate for different stakeholders in schools. Differences in frequency of items relating to benevolence, reliability, competence, honesty, and openness for students and teachers may be arbitrary, or they may reflect a hierarchy of importance for trust elements. Further investigation could indicate that students prioritize benevolence in their relationships with each other, while adults in schools may find competence to be the most important for trusting professional relationships. Similar examination of school climate domains could be fruitful as well. Results from any of these research suggestions could have significant impact on school improvement by offering directives for which elements of trust or domains of school climate offer the easiest or most impactful entry points for school improvement.

Schools and researchers should also be interested in trust and climate data drawn from individual classroom levels in addition to whole school. This would also help schools' direct resources and select professional development opportunities more effectively by identifying individual teachers who are as exemplars or who need support more efficiently. This would prevent wasting time and resources on whole school interventions that may not be necessary or beneficial for all school personnel. Whether at the whole school or classroom level, it is also important to consider how students may be involved in climate or trust efforts. Surveys would

benefit from inclusion of questions that allow students to share opinions on teacher reliability, competency, and honesty through both academic and personal examples. Students are the largest stakeholder group in schools, and their voice is a crucial part of both measuring and improving school climate or trust at both macro and micro levels.

APPENDIX A

SOURCE INFORMATION FOR SURVEYS INCLUDED IN SAMPLE

Publisher(s)/ Producer(s)	Creation/ Distribution Date	Survey Title	Target Group	Accessible at:
Authoritative School Climate Survey from the University of Virginia *Survey included within the Authoritative School Climate Survey Research Summary	Updated Oct. 13, 2019	2016 Authoritative School Climate Survey Teacher/Staff Version	Teachers	https://education.virginia.edu/authoritative-school-climate-survey-and-school-climate-bullying-survey
Authoritative School Climate Survey from the University of Virginia *Survey included within the Authoritative School Climate Survey Research Summary	Updated Oct. 13, 2019	Authoritative School Climate Survey: 2016 Elementary Version (Grades 4-5)	Elementary Students	https://education.virginia.edu/authoritative-school-climate-survey-and-school-climate-bullying-survey
Authoritative School Climate Survey from the University of Virginia *Survey included within the Authoritative School Climate Survey Research Summary	Updated Oct. 13, 2019	Authoritative School Climate Survey © Secondary School Student Version	Secondary Students	https://education.virginia.edu/authoritative-school-climate-survey-and-school-climate-bullying-survey
California Department of Education, developed by WestEd	2021-2022	California Healthy Kids Survey: School Climate Module In-School and Hybrid Only	Secondary Students	https://calschls.org/survey-administration/downloads/#ssm_sc
Georgia Department of Education	2019	Georgia School Personnel Survey (GSPS)	Teachers	https://www.gadoe.org/wholechild/Pages/School-Climate-Star-Rating.aspx
Georgia Department of Education	2019	Georgia Student Health	Elementary Students	https://www.gadoe.org/wholechild/Pages/School-Climate-Star-Rating.aspx

		Survey (Grades 3-5)		
Georgia Department of Education	2019	Georgia Student Health Survey (Grades 6-12)	Secondary Students	https://www.gadoe.org/wholechild/Pages/School-Climate-Star-Rating.aspx
Iowa City Community School District; University of Iowa	2021-2022	2021-11 ICCSD School Climate Survey – Students	Secondary Students	https://www.iowacityschools.org/Page/1130
Kentucky Department of Education	2021	Quality of School Climate and Safety Survey: Grades 3-5	Elementary Students	https://education.ky.gov/AA/Acct/Pages/SchClimate.aspx
Kentucky Department of Education	2021	Quality of School Climate and Safety: Grades 6-12	Secondary Students	https://education.ky.gov/AA/Acct/Pages/SchClimate.aspx
National Center on Safe Supportive Learning Environments	2021	NCSSLE Survey Item Bank in response to COVID-19: Instructional Staff Items	Teachers	https://safesupportivelearning.ed.gov/school-climate-survey-item-bank
National Center on Safe Supportive Learning Environments	2021	NCSSLE Survey Item Bank in Response to COVID-19: Student Items	Secondary Students	https://safesupportivelearning.ed.gov/school-climate-survey-item-bank
National School Climate Center (NSCC) at Ramapo for Children	Created 2007 Available 2021	Comprehensive School Climate Inventory: School Personnel (Sample Survey)	Teachers	https://schoolclimate.org/services/measuring-school-climate-csci/
National School Climate Center	Created 2007	Comprehensive School Climate	Elementary Students	https://schoolclimate.org/services/measuring-school-climate-csci/

(NSCC) at Ramapo for Children	Available 2021	Inventory: Elementary School Student Survey		
National School Climate Center (NSCC) at Ramapo for Children	Created 2007 Available 2021	Comprehensive School Climate Inventory: Middle/High School Student Survey	Secondary Students	https://schoolclimate.org/services/measuring-school-climate-csci/
Panorama Education - 360 Climate Surveys Starter Pack	Created 2014 Available 2021	Panorama Teacher and Staff Survey *Only questions directed at Teachers were included for analysis	Teachers	https://go.panoramaed.com/360-feedback-surveys-school-districts
Panorama Education - 360° Climate Surveys Starter Pack	Created 2014 Available 2021	Scales about the School: Grades 3-5	Elementary Students	https://go.panoramaed.com/360-feedback-surveys-school-districts
Panorama Education - 360° Climate Surveys Starter Pack	Created 2014 Available 2021	Scales about the School: Grades 6-12	Secondary Students	https://go.panoramaed.com/360-feedback-surveys-school-districts
Positive Behavioral Intervention & Support; PBISApps, University of Oregon	Created 2018; Updated November 11, 2019	School Climate Survey: School Personnel	Teachers	https://www.pbisapps.org/resource/school-climate-survey-suite-manual
Positive Behavioral Intervention & Support; PBISApps, University of Oregon	Created 2018; Updated November 11, 2019	School Climate Survey: Elementary	Elementary Students	https://www.pbisapps.org/resource/school-climate-survey-suite-manual
Positive Behavioral Intervention & Support; PBISApps, University of Oregon	Created 2018; Updated November 11, 2019	School Climate Survey: Middle/High	Secondary Students	https://www.pbisapps.org/resource/school-climate-survey-suite-manual

Sacramento City Unified School District	2021-2022	SCUSD Staff School Climate Survey	Teachers	https://www.scusd.edu/post/2021-2022-school-climate-surveys#:~:text=Each%20spring%20SCUSD%20administers%20a%20School%20Climate%20Survey,as%20safety%20and%20feelings%20of%20connectedness%20to%20school.
Sacramento City Unified School District	2021-2022	SCUSD Student School Climate Survey	Secondary Students	https://www.scusd.edu/post/2021-2022-school-climate-surveys#:~:text=Each%20spring%20SCUSD%20administers%20a%20School%20Climate%20Survey,as%20safety%20and%20feelings%20of%20connectedness%20to%20school.
Safe Communities Safe Schools; Center for the Study and Prevention of Violence at the University of Colorado	2019	School Climate Staff Survey	Teachers	https://cspv.colorado.edu/what-we-do/surveys/
Safe Communities Safe Schools; Center for the Study and Prevention of Violence at the University of Colorado	2019	Elementary School Climate Student Survey	Elementary Students	https://cspv.colorado.edu/what-we-do/surveys/
Safe Communities Safe Schools; Center for the Study and Prevention of Violence at the University of Colorado	2019	Middle School Climate Student Survey	Secondary Students	https://cspv.colorado.edu/what-we-do/surveys/
State of New Jersey Department of Education	Created 2014	School Climate Survey: School Staff	Teachers	https://www.nj.gov/education/students/safety/behavior/njscs/

	Available until June 2022			
State of New Jersey Department of Education	Created 2014 Available until June 2022	School Climate Survey: Elementary Students	Elementary Students	https://www.nj.gov/education/students/safety/behavior/njscs/
State of New Jersey Department of Education	Created 2014 Available until June 2022	School Climate Survey: Middle - High School Students	Secondary Students	https://www.nj.gov/education/students/safety/behavior/njscs/
Tennessee School Climate Measurement Package; Tennessee Department of Education	2020-2021	Teacher Survey 2020-21	Teachers	https://www.tn.gov/content/dam/tn/education/health-&-safety/NEW%202021%20Tennessee%20School%20Climate%20Survey%20Meas.pdf
Tennessee School Climate Measurement Package; Tennessee Department of Education	2020-2021	Elementary School Student Survey 2020-21	Elementary Students	https://www.tn.gov/content/dam/tn/education/health-&-safety/NEW%202021%20Tennessee%20School%20Climate%20Survey%20Meas.pdf
Tennessee School Climate Measurement Package; Tennessee Department of Education	2020-2021	Middle School Student Survey 2020-21	Secondary Students	https://www.tn.gov/content/dam/tn/education/health-&-safety/NEW%202021%20Tennessee%20School%20Climate%20Survey%20Meas.pdf
Tennessee School Climate Measurement Package; Tennessee Department of Education	2020-2021	High School Student Survey 2020-21	Secondary Students	https://www.tn.gov/content/dam/tn/education/health-&-safety/NEW%202021%20Tennessee%20School%20Climate%20Survey%20Meas.pdf
United States Department of Education National	Updated August 2, 2021	ED School Climate Surveys:	Teachers	https://safesupportivelearning.ed.gov/edscls/administration

Center for Education Statistics		Instructional Staff Survey		
United States Department of Education National Center for Education Statistics	Updated August 2, 2021	ED School Climate Surveys: Student Survey	Secondary Students	https://safesupportivelearning.ed.gov/edscls/administration
University of Delaware	2020-2021	Delaware School Climate Survey 2020-2021: Teacher and Staff	Teachers	https://www.delawarepbs.org/school-climate/delaware-school-climate-survey-2019-20/
University of Delaware	2020-2021	Delaware School Climate Survey Student Version 3-5	Elementary Students	https://www.delawarepbs.org/school-climate/delaware-school-climate-survey-2019-20/
University of Delaware	2020-2021	Delaware School Climate Survey Student Version 6-12	Secondary Students	https://www.delawarepbs.org/school-climate/delaware-school-climate-survey-2019-20/
Washoe County School District (Nevada)	2019-2020, 2020-2021	Student Climate Survey	Secondary Students	https://www.washoeschools.net/Page/13663

APPENDIX B

GENERIC CATEGORIES, DEFINITIONS, AND CODING RULES FOR SCHOOL CLIMATE

	Generic Category	Definition	Coding Rules & Subcategories with Codes
School Climate	Safety	Physical and emotional safety, school and classroom rules, disciplinary practices, substance use and abuse, and bullying	Explicit use of the following words or phrases drawn from the definition or reference to other topics associated with this generic category - Definition: safe/safety, rules, discipline, substance use, substance abuse, bully/bullying - Substances: Name of any specific substance, like “tobacco” or “alcohol”, or reference to general terms referencing substances like “smoke”, “vape”, “drink”, “drugs” - Crime: References to theft, fighting, or security - Behavior: References to good behavior, rewards, praise, punishment, or other behavior consequences - Inclusion: References to diversity, equity, or equality - Preparation: Reference to safety plans or preparations for emergency situations
	Academics	Teaching and instructional practices, academic expectations, support for student learning, specific curricula including ethical and civic learning, cultural and linguistic competence, professional behavior, professional development, and decision-making	Explicit use of the following words or phrases drawn from the definition or reference to other topics associated with this generic category - Definition: academics, instruction, curriculum, professional development, teaching - Non-Content Skills: Reference to active teaching of social, emotional, ethical, or civic knowledge and skills - Achievement: Reference to high standards, high achievement, high expectations, good education or opposite sentiments like underachieving, low performing - Success: Reference to student or teacher success - Learning & Assessment: Reference to classroom practices or activities, beliefs about learning abilities, learning of specific student groups (differently abled, students with IEPs), qualities of teaching or learning, measures like homework, grades, testing, or other measures of performance - Purpose: References to purpose, vision, or mission of school

			- Decisions: References to collaboration and decision making - Professionalism: References to professional collaboration, professional support, or professional expectations - Administration: References to professional interaction with administration or administrators
	Relationships	Social support from peers and adults, connection to school, care for others, sense of community, and involvement of family	Explicit use of the following words or phrases drawn from the definition or reference to other topics associated with this generic category - Definition: relationships, connected, care (for others) connection, care, community, family, or parent) - Personal Interest: Reference to interest in or actions to support the personal well-being of or by students, teachers, or administrators - Personal Value: Reference to feeling valued by students, teachers, or administrators - Involvement: Reference to involvement in extra-curricular activities or non-academic school events
	Environment	Condition of the physical building, organizational structure of the school, availability of quality resources and supplies, and overall sense of positivity or negativity	Explicit use of the following words or phrases drawn from the definition or reference to other topics associated with this generic category - Definition: environment, building, organization, resources, supplies - Facilities: Reference to maintenance procedures or quality, like cleanliness or time frame for fixing damage - Materials: General reference to availability, quality, or distribution of resources and materials available - Atmosphere: Reference to student and teacher overall reaction to school, indicating a positive or negative overall school culture or atmosphere

APPENDIX C

GENERIC CATEGORIES, DEFINITIONS, AND DEDUCTIVE CODING RULES FOR TRUST

	Generic Category	Definition	Coding Rules & Subcategories with Codes
Trust	Benevolence	A sense of care and belief that each party wishes to protect the well-being of the other	Survey statement or question must include one or more of the following words exactly, used in a positive statement: - Benevolence: benevolence, benevolent - Respect: respect, respected, respectful, respectfully - Care: care, cares, caring - Concern: concern (for, about) - Friend: friend, friends, friendly - Kind: kind, kindness, kindly
	Reliability	Both parties are secure in their ability to predict the behaviors of the other	Survey statement or question must include one or more of the following words exactly, used in a positive statement: - Reliable: reliable, reliability, rely on, count on - Stable: stable, stability - Predictable: predict, predictable - Dependable: depend on, dependable - Follow Though: follow, followed - Confidence: confident in, confidence in
	Competence	Both parties have the skills and abilities necessary to fulfill the other party's expectations	Survey statement or question must include one or more of the following words exactly, used in a positive statement: - Competence: competence, competent - Ability: able, ability - Expertise: expert, expertise - Accuracy: accurate, accuracy - Skill: skill, skills, skilled
	Honesty	Integrity and truthfulness in words and actions of each party	Survey statement or question must include one or more of the following words exactly, used in a positive statement: - Honesty: honesty, honest - Integrity: integrity - Credibility: credibility, credible - Transparency: transparency, transparent - Authenticity: authenticity, authentic - Character: character - Truth: truth, truthful
	Openness	Willingness from both parties to communicate relevant information with the other party	Survey statement or question must include one or more of the following words exactly, used in a positive statement: - Openness: openness, open

			- Communication: communicate, communicates, communication, communications - Sharing: share, shares, shared, sharing
	Trust	Assumption of vulnerability combined with evidence of benevolence, reliability, competence, honesty, and openness between two parties	Survey statement or question must include one or more of the following words exactly, used in a positive statement: - Trust: trust, trusting

APPENDIX D

INDUCTIVE CODING PROCESS

Initial List of All Possible Inductive Codes

Benevolence	Reliability	Competence	Honesty	Openness
• Be/Being good • Do well • Encourage • Feel good • Get along • Good behavior • Good job • Interest (in) • Like • Matter • Nice • Praise • Recognize • Reward • Support • Treat well • Welcome • Work well (together) • Protect	• Always • As soon as possible • Attention (to) • Available • Backs up • Be sure • Committed • Consistent • Definitely • Deserve • Do something • Equal • Fair • Go to • Good example • Help • Quickly • Same • Solve • Well-behaved • Responsible • Resolve	• Expect/ Expectations • Success • Achieve • Learn • Understand • Standards • Pay attention • Training • Team • Testing • Explain (answer) • Work • Grades • Schoolwork • Homework • Do/Doing • Best • Adjust • Collaborate • Try • Behave • Do well • Prepare • Interesting (content) • Feedback • Evaluate • Professional development • Support • Graduate		• Sides of a story • Listen • Talk with/to • Comfortable • Events • Clear • Decide/Decision • Be part of • Chance • Participate • Take part in • Join • Spend time • Know • Heard • Express • Approach • Activities • Feedback • Influence • Parent • Family

List of Possible Inductive Codes with Rare Codes Removed

Benevolence	Reliability	Competence	Honesty	Openness
• Be/Being good • Do well • Encourage • Feel good • Get along • Good behavior • Good job • Like • Praise • Recognize • Reward • Support • Treat well • Welcome • Work well (together) • Protect	• Always • As soon as possible • Attention (to) • Available • Be sure • Consistent • Deserve • Take Action • Take care of (a problem) • Handle • Equal • Fair • Go to • Good example • Help • Quickly • Same • Solve • Well-behaved • Responsible • Resolve	• Expect/ Expectations • Success • Achieve • Learn • Understand • Pay attention • Training • Team • Testing • Explain (answer) • Work • Grades • Schoolwork • Homework • Do/Doing • Best • Adjust • Collaborate • Try • Behave • Do well • Effective • Prepare • Interesting (content) • Feedback • Professional development • Support • Evaluate • Graduate		• Sides of a story • Listen • Talk with/to • Comfortable • Events • Clear • Decide/Decision • Be part of • Chance • Participate • Take part in • Join • Spend time • Know • Heard • Express • Approach • Activities • Feedback • Parent • Family

Final List of Inductive Codes Used for Analysis (Matched with Deductive Codes)

Benevolence	Reliability	Competence	Honesty	Openness
• Do well – others want, believe I can (Benevolence) • Encourage (Benevolence) • Feel good (Kindness) • Get along, work well (Friendly) • Like (Benevolence) • Praise, reward, recognize (Kindness) • Support (Care) • Treat well (Benevolence) • Welcome (Friendly)	• Always (Predictable) • Attention (to) • Consistent (Reliable) • Take Action, Take care of (a problem), handle, fix (Follow Through) • Equal (Stable) • Fair (Stable) • Go to (Reliable) • Help (Dependable) • Same (Stable) • Responsible (Dependable)	• Success (Competence) • Achieve (Competence) • Testing (Expertise) • Grades (Ability) • Behave • (I) Do well, perform well (Ability) • Effective (Expertise) • Prepare (Ability) • Evaluate (Skills) • Graduate (Competence) • Solve, resolve (Skill)	• Clear (Transparency) • Good example (Character)	• Listen, be heard (Communication) • Talk with/to, tell (Sharing) • Comfortable (Openness) • Decide/Decision (Openness) • Chance to explain, opportunity to explain (Openness) • Join, participate in, get involved (Openness) • Know, knowledge (Sharing) • Express (Sharing) • Feedback (Sharing) • Parent, family (Openness) • Available (Openness)

APPENDIX E

GENERIC CATEGORIES, DEFINITIONS, AND INDUCTIVE CODING RULES FOR TRUST

	Subcategory	Definition	Coding Rules
Trust	Benevolence	A sense of care and belief that each party wishes to protect the well-being of the other	Survey statement or question indicated connection to subcategory of benevolence through the use word or phrase synonymous with deductive codes - Like (benevolence): like - Get Along (friendly): get along with, get along well, work well together, work well with - Praise (kindness): praise, reward, recognition, recognize - Encourage (benevolence): encourage, encouraging - Support (care): support, supports, supportive, supported - Well Wishes (benevolence): (others) want (me) to do well, (others) believe (I) can do well - Treat well (benevolence): treat well, treats well, treat others well - Welcome (friendly): welcome, welcoming - Feel Good (kindness) : (others) make me feel good - Protect (care): protect
	Reliability	Both parties are secure in their ability to predict the behaviors of the other	Survey statement or question indicated connection to subcategory of reliability through the use word or phrase synonymous with deductive codes - Fair (stable): fair, fairly - Equal (stability): equal, equally - Same (stability): same - Always (predictable): Always - Consistency (reliable): consistent, consistently - Responsible (dependable): responsible, responsibility - Help (dependable): help, helpful, helping - Action (follow through): taken care of, take action, handle, fix - Go to (reliable)**:** go to
	Competence	Both parties have the skills and abilities necessary to fulfill the other party's expectations	Survey statement or question indicated connection to subcategory of competence through the use word or phrase synonymous with deductive codes - Grades (ability): grade, grades, earn As

			- Success (competence): success, successful, succeed - Achieve (competence): achieve, achievement - Effectiveness (expertise): effective, effectively - Evaluation (skill): evaluate, evaluated, evaluation - Preparation (ability): prepared - Assessment (expertise): test, testing - Graduation (competence): graduate - Solve (skill): solve, solving, resolve - Performance (ability): (I) do well, perform well
	Honesty	Integrity and truthfulness in words and actions of each party	Survey statement or question indicated connection to subcategory of honesty through the use word or phrase synonymous with deductive codes - Clear (transparency): clear, clearly - Example (character): good example
	Openness	Willingness from both parties to communicate relevant information with the other party	Survey statement or question indicated connection to subcategory of openness through the use word or phrase synonymous with deductive codes - Listening (communication): listen to, listening, be heard - Talking (sharing): talk to, talk with, tell - Decisions (openness): decide, decisions, decision making - Comfort (openness): comfortable - Available (openness): available, availability - Chances (openness): chance to tell or explain, opportunity to explain - Expression (sharing): express - Reporting (communication): report - Shared Knowledge (sharing): know, get to know, let know - Family Involvement (openness): family, parent, parents - School Activities (openness): join, participate in, get involved - Feedback (openness, sharing): feedback
	Trust	Assumption of vulnerability combined with evidence of	Survey statement or question indicated connection to subcategory of trust through the

		benevolence, reliability, competence, honesty, and openness between two parties	use word or phrase synonymous with deductive codes - No inductive codes were found because the only deductive code for this category was the exact word “trust”

APPENDIX F

ANCHOR SAMPLES

School Climate Codes

	Generic Category	Subcategory/Code	Anchor Sample
School Climate	Safety	Safe/Safety	Delaware (Teachers, Elementary, Secondary): Students know they are safe in this school. ED (Teachers): I feel safe at this school. ED (Secondary): If students hear about a threat to school or student safety, they would report it to someone in authority.
		Rules	Delaware (Teachers, Elementary, Secondary): The school rules are fair. TN (Secondary): I feel like the school rules have been communicated to me clearly.
		Discipline	ED (Teachers, Secondary): Discipline is fair.
		Substance use	ED (Teachers): This school has programs that address substance use among students.
		Bully/Bullying	Delaware (Teachers, Elementary, Secondary): Students threaten and bully others. Panorama (Elementary, Secondary): How likely is it that someone from your school will bully you online?
		Reference to specific substances	ED (Teachers, Secondary): At this school, how much of a problem is student drug use?
		Reference to theft, fighting, security	ED (Teachers, Secondary): The following types of problems occur at this school often: robbery or theft TN (Teachers): I think that physical fighting among students is a frequent problem at this school.
		Reference to good behavior, rewards, praise	Delaware (Teachers, Elementary, Secondary): Students are often given rewards for being good.
		Reference to diversity, equity, equality	ED (Teachers, Secondary): School rules are applied equally to all students.

		Reference to safety plans or preparations for emergency situations	ED (Teachers): This school has a written plan that clearly describes procedures to be performed in natural disasters (e.g., earthquakes or tornadoes).
	Academics	Academics	TN (Teachers): The programs and resources at this school are adequate to provide instructional supports to students who are struggling academically
		Instruction, Instructional	ED (Teachers): This school provides instructional materials (e.g., textbooks, handouts) that reflect students' cultural background, ethnicity and identity.
		Curriculum	Safe Schools, Safe Communities (Teachers): The curriculum offered to students at this school is challenging and creative.
		Professional Development	TN (Teachers): The programs and resources at this school are adequate to address the professional development needs of school staff
		- References to presence of social, emotional, ethical, or civic knowledge, skills, and supports	ED (Teachers): This school provides quality counseling or other services to help students with social or emotional needs.
		- References to high standards, high achievement, high expectations, good education, doing well, or opposite sentiments like underachieving, low performing	Panorama (Secondary): Overall, how high are your teachers' expectations of you? TN (Teachers): Teachers and other adults at this school set high expectations for learning.
		- References to student or teacher success	ED (Teachers): Teachers at this school feel that it is a part of their job to prepare students to succeed in college. TN (Teachers): Teachers and other adults at this school believe that all students can be successful.
		- References to classroom practices or assignments like homework, grades	Delaware (Teachers): Most students work hard to get good grades.

			Delaware (Elementary, Secondary): Most students turn in their homework on time. Panorama (Secondary): How often do your teachers make you explain your answers?
		- References to purpose, vision, values, or mission of school	NSCC (Teachers): Adults in this school are good examples of the values the school teaches (like respect, responsibility, and fairness). Sacramento (Teachers): My school has developed a vision for academic, social and emotional learning.
		- References to collaboration and decision making	ED (Secondary): At this school, students have lots of chances to help decide things like class activities and rules. ED (Teachers): Administrators involve staff in decision-making.
		- References to professional collaboration, professional support, or professional expectations	ED (Teachers): Administrators involve staff in decision-making. Panorama (Teachers): How relevant have your professional development opportunities been to the content that you teach? TN (Teachers): School administrators at this school convey clear expectations to teachers and other school staff.
		- References to interaction with administration or administrators	Delaware (Teachers): There is good communication among teachers, staff, and administrators. Panorama (Teacher): Overall, how much do you learn about teaching from the leaders at your school?
	Relationships	Relationships	NJ (Teachers): Teachers have close working relationships with each other.
		Connected/Connection	Panorama (Secondary): How connected do you feel to the adults at your school?
		Respect	Delaware (Teachers): Students treat each other with respect.

			ED (Teachers, Secondary): This school emphasizes showing respect for all students' cultural beliefs and practices. Panorama (Teachers): How respectful are the relationships between teachers and students?
		Community	ED (Teachers): This school collaborates well with community organizations to help address youth substance use problems. TN (Teachers): I feel like I am a valued part of the school community.
		Family/Parent	Delaware (Teachers): Teachers listen to the concerns of parents. Panorama (Teachers): How challenging is it to communicate with the families of your students?
		- References to interest in personal well-being or success of or by students, teachers, or administrators	Delaware (Teachers, Elementary, Secondary): Adults who work here care about the students. ED (Teachers): People at this school care about me as a person. ED (Secondary): Students like one another.
		- References to feeling valued or supported by students, teachers, or administrators	Delaware (Teachers): Administrators and teachers support one another. Delaware (Teachers, Elementary, Secondary): Teachers like their students.
		- References to involvement in extra-curricular activities or non-academic school events	ED (Teachers): Students are encouraged to get involved in extra-curricular activities. ED (Secondary): I regularly participate in extra-curricular activities offered through this school, such as, school clubs or organizations, musical groups, sports teams, student government, or any other extra-curricular activities.
	Environment	Environment	NJ (Teachers): The school environment is clean and in good condition

		Building	NJ (Elementary, Secondary): I like my school building. GA (Teachers): My school building is well maintained.
		Organization	
		Resources	ED (Teachers, Secondary): This school provides effective resources and training for teaching students with Individualized Education Programs (IEPs) across different languages and cultures. Panorama (Teachers): Overall, how much does your school struggle due to a lack of resources?
		Supplies	ED (Teachers): My teaching is hindered by a lack of textbooks and basic supplies at this school.
		- References to maintenance procedures or quality, like cleanliness or time frame for fixing damage	ED (Teachers): This school looks clean and pleasant. ED (Secondary): The bathrooms in this school are clean. Panorama (Teachers): How often do your school's facilities need repairs? TN (Secondary): I think that the school grounds look like they are well-maintained.
		- References to availability or quality of resources and materials available	Panorama (Teachers): To what extent does the quality of the resources at your school need to improve? TN (Teachers): This school campus provides teachers with adequate supplies and materials to support instruction.
		- References to student and teacher emotional reaction to school as a whole, indicating a positive or negative overall environment	Delaware (Elementary, Secondary): I like this school. / I feel happy in school. Panorama (Teachers): Overall, how positive is the working environment at your school? Panorama (Secondary): How positive or negative is the energy of the school?

Deductive Codes for Trust

	Generic Category	Subcategory/Codes - Deductive	Anchor Sample
Trust	Benevolence	Benevolent, Benevolence	N/A
		Respect, Respected, Respectful, Respectfully	Delaware (Teachers, Elementary, Secondary): Students treat each other with respect. ED (Teachers): This school emphasizes showing respect for all students' cultural beliefs and practices.
		Care, Cares, Caring	Delaware (Teachers): Adults who work here care about the students. ED (Teachers): People at this school care about me as a person
		Concern (for, about)	Panorama (Elementary): If you walked into class upset, how concerned would your teachers be?
		Friend, Friends, Friendly	Delaware (Teachers, Elementary, Secondary): Students are friendly with each other.
		Kind, Kindness, Kindly	Delaware (Elementary, Secondary): I am kind to others.
	Reliability	Reliability, Reliable, Rely on, Count on	N/A
		Stable, Stability	N/A
		Predict, Predictable	N/A
		Dependable, Depend on	N/A
		Follow, Followed	Delaware (Teachers): Most students follow the school rules. ED (Teachers): Once we start a new program at this school, we follow up to make sure that it's working.
		Confidence in, Confident in	Panorama (Teachers): How confident are you that your school leaders have the best interests of the school in mind? TN (Secondary): I have at least one teacher who has confidence in me.
	Competence	Competence, Competent	Sacramento (Teachers): My principal models social and emotional competence in the way that he/she

			deals with students and faculty on an every day basis.
		Able, Ability	Sacramento (Secondary): I am able to clearly describe my feelings.
		Expert, Expertise	N/A
		Accuracy, Accurate	N/A
		Skill, Skills, Skilled	ED (Teachers): Staff do a good job helping parents understand when their child needs to learn social, emotional, and character skills. TN (Secondary): I feel like my teachers have helped me improve my study skills.
	Honesty	Honesty, Honest	GA (Secondary): Honesty is an important trait to me.
		Integrity	N/A
		Credibility, Credible	N/A
		Transparency, Transparent	N/A
		Authenticity, Authentic	N/A
		Character	N/A
		Truthful, Truth	Delaware (Elementary, Secondary): I am telling the truth in this survey.
	Openness	Openness, Open	GA (Secondary(: I am open towards different opinions and perspectives.
		Communicate, Communicates, Communicated, Communication, Communications	Delaware (Teachers): Teachers do a good job communicating with parents ED (Teachers): This school communicates with parents in a timely and ongoing basis. Panorama (Teachers): How effectively do school leaders communicate important information to teachers?
		Share, Shares, Shared, Sharing	NJ (Secondary): My teachers encourage students to share their ideas about things we are studying in class. TN - share in open ended question at the end of the survey

	Trust	Trust, Trusting	Panorama (Teachers): How much do you trust that parents of your students will treat you fairly? TN (Elementary, Secondary): Students at my school trust each other. TN (Teachers): Teachers and other adults at this school trust each other.

Inductive Codes for Trust

	Generic Category	Subcategory/Codes – Inductive	Anchor Sample
Trust	Benevolence	Like	Delaware (Teachers, Elementary, Secondary): I like this school.
		Get Along	Delaware (Teachers, Elementary, Secondary): Students get along with each other.
		Praise, Reward, Recognition, Recognize	Delaware (Teachers, Elementary, Secondary): Students are praised often.
		Encourage, Encouraging	Panorama (Elementary, Secondary): How much do your teachers encourage you to do your best?
		Support, Supports, Supportive, Supported	ED (Teachers): The programs and resources at this school are adequate to support students' learning. Panorama (Teachers): How supportive are students in their interactions with each other?
		(Others want me to) Do Well	Authoritative (Elementary): Most adults at this school want all students to do well.
		Treat Well	GA (Elementary): Students treat each other well.
		Work Well, Work Together	Delaware (Teachers): Teachers, staff, and administrators work well together.
		Welcome, Welcoming	GA (Secondary): Students in my school are welcoming to new students.
		Feel Good	Washoe (Secondary): My teachers make me feel good about myself.

		Protect	TN (Secondary): Students at my school try to protect each other.
	Reliability	Fair, Fairly	Delaware (Teachers, Elementary, Secondary): The consequences of breaking rules are fair. Panorama (Teachers): How fair is the way teachers are assessed at your school?
		Equal, Equally	ED (Teachers, Secondary): School rules are applied equally to all students.
		Same	Authoritative (Teachers, Secondary): The punishment2 for breaking school rules is the same for all students.
		Always	ED (Teachers): Staff at this school always stop bullying when they see it.
		Consistent, Consistently	TN (Teachers): Teachers and other adults at this school consistently enforce rules of conduct.
		Responsible, Responsibility	Delaware (Elementary, Secondary): Students are taught to feel responsible for how they act.
		Help, Helpful, Helping	TN (Elementary): I think that the adults at this school help you learn from your mistakes. TN (Secondary): I feel like I can understand difficult concepts with the help of my teachers.
		Taken care of, Take Action, Handle, Fix	SCSS (Elementary, Secondary): If I report unsafe or dangerous behavior, I can be sure that the problem will be taken care of as soon as possible.
		Go to	TN (Elementary, Secondary): I have at least on teacher who I can go to if I feel unsafe.
	Competence	Grade, Grades (good, high), Earn As	Delaware (Teachers, Elementary, Secondary): Most students work hard to get good grades
		Success, Successful, Succeed	SCSS (Teachers): Adults in this school have high expectations for students' success.

		Achieve, Achievement	TN (Teachers): Teachers and other adults at this school are committed to helping students achieve.
		Effective, Effectively	TN (Teachers): This school or school district provides effective training in safety procedures to staff (e.g., lockdown training or fire drills).
		Evaluate, Evaluated, Evaluation	Panorama (Teachers): How often is your teaching evaluated?
		Prepared	ED (Teachers): The students in my class(es) come to class prepared with the appropriate supplies and books.
		Test, Testing	Panorama (Teachers): How many of your teaching decisions are made with the goal of trying to improve students' test scores?
		Graduate (HS)	TN (Secondary): I think that I will definitely graduate from high school.
		Solve, Good at Solving, Resolve	Delaware (Elementary, Secondary): Students are taught how to solve conflicts with others.
		(I) Do well, Perform Well	Panorama (Elementary, Secondary): How important is it to you to do well in your classes?
	Honesty	Clear, Clearly	Delaware (Teachers, Elementary, Secondary): Rules are made clear to students.
		Good Example	NSCC (Elementary, Secondary): Adults in my school are good examples of the values the school teaches (like respect, responsibility, and fairness)
	Openness	Listen to, Listening, Be Heard	Delaware (Teachers, Elementary, Secondary): Teachers listen to students when they have problems.
		Talk to, Talk with	ED (Secondary): I can talk to a teacher or other adult at this school about something that is bothering me.
		Decisions, Decide, Decision making	NJ (Secondary): Students help decide what goes on in my school. Panorama (Teachers): When the school makes important decisions, how much input do teachers have?

		Comfortable	TN (Teachers): Students at this school would feel comfortable reporting a bullying incident to a teacher or other adult.
		Available, Availability	ED (Secondary): Teachers are available when I need to talk with them.
		Chance to Tell/Explain, Opportunity to Explain	TN (Elementary, Secondary): I feel like if you get in trouble in this school, you have a chance to tell your side of the story.
		Express	NJ (Secondary): I have opportunities to express myself at school.
		Report	ED (Secondary): If students hear about a threat to school or student safety, they would report it to someone in authority.
		Know, Get to know, Let (me) Know	Delaware (Teachers, Elementary, Secondary): Students know how they are expected to act.
		Family, Parent, Parents	TN (Secondary): My parent(s) or guardian(s) are involved in my school life.
		Join, Participate in, Get Involved in (Extra-Curriculars)	TN (Secondary): I regularly participate in extra-curricular activities offered through my school, such as school clubs or organizations, musical groups, sports teams, student government, or any other extra-curricular activities
		Feedback	Panorama (Teachers): How useful do you find the feedback do you receive on your teaching?

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