Factors that Influence Teacher Perceptions of Safety in One School Division in Virginia

Nate P. Bopp

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Carol S. Cash, Chair

Ted S. Price

Jodie L. Brinkmann

Stacey L. Timmons

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ABSTRACT

School divisions have spent billions of dollars on school safety upgrades since the events at Columbine (Cox & Rich, 2018). However, the research on the effectiveness of policies and safety upgrades has been inconsistent. Further, research dedicated to teacher perceptions of school is limited. An in-depth examination of how teachers perceive safety policies and practices could assist school leaders in the creation of safe working spaces for their teachers.

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. This study was an extension of Leonard's (2016) study entitled *What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?* This mixed-methods study surveyed 559 teachers in a medium-sized Virginia school division and had 353 participants. The survey tool consisted of qualitative and quantitative elements designed to measure teacher perceptions of safety regarding physical characteristics of school facilities, collegial relationships, school administrator practices, and the principal's adherence to school division safety policies. Descriptive tables for each survey question were created. The tables highlighted statistical trends gathered from the quantitative portion of the study and lists of common perceptions observed from the thematic analysis process. Potential relationships between perceptions of safety, school facilities, gender, years of experience, and teaching assignments were highlighted.

The study indicated that physical and visible security measured impacted teacher perceptions of safety. Teachers identified that locked exterior doors, the presence of school

resource officers, and security cameras positively impacted their perceptions of safety. The school environment had an impact on perceptions of teacher safety. Teachers determined that colleague support impacted perceptions of safety positively. In addition, school administrators' practices influenced teacher perceptions of safety. Teachers conveyed that principal visibility, administration support, and open communication enhanced their perception of safety. Further, teachers highlighted the importance of their awareness of school and district safety policies, and the existence of crisis plans at the school and division level. Moreover, the majority of teachers' perceptions of safety were not negatively impacted by student behavior or the potential of outside intruder threats. Thus, the researcher determined that, overall, teachers perceived that they felt safe at school.

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GENERAL AUDIENCE ABSTRACT

School divisions have spent billions of dollars on school safety upgrades since the events at Columbine (Cox & Rich, 2018). However, the research on the effectiveness of policies and safety upgrades has varied. Further, research dedicated to teacher perceptions of school is limited. An in-depth examination of how teachers perceive safety policies and practices could assist school leaders in the creation of safe working spaces for their teachers.

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. This study was an extension of Leonard's (2016) study entitled *What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?* The researcher surveyed 559 teachers in a medium-sized Virginia school division and had 353 participants. The survey consisted of qualitative and quantitative elements designed to measure teacher perceptions of safety regarding physical characteristics of school facilities, collegial relationships, school administrator practices, and the principal's adherence to school division safety policies. A summary table for each survey question was created. The tables highlighted statistical trends gathered from the quantitative portion of the study and lists of common perceptions observed within the qualitative questions responses. Potential relationships between perceptions of safety, school facilities, gender, years of experience, and teaching assignments were highlighted.

The researcher determined that physical and visible security measured impacted teacher perceptions of safety. Teachers identified that locked exterior doors, the presence of school resource officers, and security cameras positively impacted their perceptions of safety. The

school environment had an impact on perceptions of teacher safety. Teachers determined that colleague support positively impacted perceptions of safety. In addition, school administrators' practices influenced teacher perceptions of safety. Teachers conveyed that principal visibility, administration support, and open communication enhanced their perception of safety. Further, teachers highlighted the importance of their awareness of school and district safety policies, and the existence of crisis plans at the school and division level. Moreover, the majority of teachers' perceptions of safety were not negatively impacted by student behavior or the potential of outside intruder threats. Thus, the researcher determined that, overall, teachers felt safe at school.

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DEDICATION

This study is dedicated to my family, my parents, and the Lord. Without their constant support and encouragement, I would not have made it to the end. I am thankful for everyone believing in me, and the help that each of them gave me in their own way.

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Chapter One

School shootings increased every year from 1970 to 2019 (Buchholz & Richter, 2019). Since 1966, there have been 18 school shooting events that resulted in 183 deaths (Leiner et al., 2018). Since the school shooting at Columbine in 1999, over 240,000 K-12 students attending 249 schools have experienced a school shooting while on campus (Cox et al., 2021). The United States has had 57 times more school shootings than other major industrialized countries combined (Grabow & Rose, 2018). These acts of violence have been highly publicized by the media, which some researchers believe has led to widespread fear across the United States (Madfis, 2016). After Columbine, a 1999 Gallup poll found that nearly two-thirds of Americans believed that a similar incident could happen in their community, and one-third of students believed there were students in their school that could do something similar (Borum et al., 2010). A 2019 Gallup poll found that 34% of parents surveyed remained concerned about their student's safety in school (Brenan, 2021). As a response to these growing cases of violence, school districts spent over $2.7 billion in facility and security upgrades such as security cameras, security personnel, and metal detectors (Cox & Rich, 2018). However, research has varied on the effectiveness of school security upgrades (Anderson, 2018; King & Bracy, 2019). Further, principals across the country are dedicating more of their time to school security issues without any clear consensus on what keeps students and teachers safe (Rogers, 2019).

Historical Perspective

The publicized school shootings starting with Columbine in 1999 created a moral panic of widespread fear of school violence. Moral panics are traditionally propagated through the media and can spread fear to wide groups of people (Crossman, 2019). School divisions around the country responded by implementing safety upgrades and policies to demonstrate to their

communities that they were making changes to keep schools safe (Burns & Crawford, 1999; Goode & Ben-Yehunda, 2009). Roque (2012) argued that many of these upgrades were an overreaction fueled by the media's fascination with these violent acts. Addington (2003) found that the level of student concern over school shootings was not nearly as high as the media would have the public believe.

After Columbine, school leaders continued to implement the zero-tolerance policies and practices that became popular in the mid-1980s (Skiba, 2013). However, researchers found that zero-tolerance policies were not an effective tool to increase school safety and led to increases in student suspensions and disproportionate student discipline consequences within some student gap groups (Demitchell & Rath, 2019; Losen & Skiba, 2010; Sykes et al., 2015). In the mid-2000s, threat assessment policies and practices gained popularity and were found to be an effective alternative to zero-tolerance policies (Cornell et al., 2004; Cornell et al., 2011; Cornell et al., 2012; King & Bracey, 2019; Maeng et al., 2019; Nekvasil & Cornell, 2015; Strong & Cornell, 2008).

States have started mandating lock-down or active shooter drills in public schools at an increasing rate (Blad, 2017). The Commonwealth of Virginia requires schools to conduct these drills twice a year (Code of Virginia, 2016). Blad (2017), Krisch (2018), Magliozzi (2018), and Peterson et al. (2015) argued that these drills can do more harm than good to students and can in some cases create more fear of an event taking place. Further, the importance that stakeholders placed on these drills varied. Scholars have found that in some cases parents valued anti-violence drills more so than school administrators (Payton et al., 2017; Price et al., 2016). In other cases, principals believed that security drills are the most effective tool they have regarding school safety (Kelly, 2017).

Concerning visible security upgrades such as security cameras, metal detectors, and security staff, researchers found that they can negatively impact student perceptions of safety and have a minimal impact on preventing crime (Addington, 2009; Mowen & Freng, 2019; Tanner-Smith & Fisher, 2016). Security cameras in schools have been found to lower student perceptions of safety (Johnson et al., 2018; Mowen & Freng, 2019; Perumean-Chaney & Sutton, 2013). An increased presence of School Resource Officers (SROs) in schools does not decrease student discipline infractions, serious acts of violence, or lower instances of student bullying (Anderson, 2018; Devlin et al., 2018; Swartz et al., 2016). Many scholars have found that the presence of metal detectors in schools increased student perceptions of fear and are in some cases utilized based on the percentage of minority students in the school and not the level of crime (Bachman et al., 2011; Gastic, 2011; Gastic & Johnson, 2015; Perumean-Chaney & Sutton, 2013; Schreck & Miller, 2003).

School climate and culture as well as collegial relationships play a role in keeping schools safe. Scholars have found that schools with strong perceived climates and cultures had lower levels of violence (Barnes et al., 2012). Further, schools with strong authoritative climates with clear rules reported fewer acts of student delinquency and teacher victimization (Fan et al., 2005; Goodwin & Jones, 2019; Gottfredson et al., 2005). However, the findings on the impact of accessible and visible principals on perceptions of school safety varied (Leonard, 2016; Wilcox, 2018).

Statement of the Problem

School divisions have spent billions of dollars on school safety upgrades since the events at Columbine (Cox & Rich, 2018). However, the research on the necessity of spending this money and the effectiveness of the policies and safety upgrades made in schools has been

inconsistent. Further, research dedicated to teacher perceptions on school safety policy and practice is limited. The majority of the research on perceptions of safety in schools is focused on three main groups of stakeholders: students, principals, and parents. This lack of research could be noteworthy as a survey conducted by the Nation Education Association found that 60% of teachers were concerned that a mass shooting could take place in their school (Walker, 2018). In addition, the Commonwealth of Virginia has acknowledged the need to address teacher safety concerns. Every two years, the Commonwealth mandates school divisions to complete the Virginia Working Condition Survey (Virginia Department of Education, 2019). However, it could be argued that the survey does not place enough emphasis on teacher safety anxieties. Of the 84 questions from the 2019 survey, only two addressed teacher safety concerns. The survey does not address school facilities, collegial relationships, the role administrators play in school safety, or safety policies (Virginia Department of Education, 2019).

This study aimed to identify factors that influence teacher perceptions of safety within the school environment. By exploring how these factors impact teachers' perception of safety, the researcher aimed to provide educational leaders with potential measures to consider when making safety decisions in their schools designed to keep not only students safe but teachers as well. At the local level, the research can provide principals and school leaders with feedback on how their actions and adherence to division policy are impacting the safety perceptions of their teachers.

Purpose of the Study

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. The study was an extension of the research methodology used in Leonard's (2016) study entitled *What School Factors Influence Teachers' Perceptions of*

Safety in Their Classrooms and Schools? The study identified factors that influence teacher perceptions of safety. The study explored connections between four areas of a teacher's experiences with their perceptions of safety. The four areas were physical characteristics of schools, relationships with colleagues, school administration practices, and the principals' adherence to division safety policies. The four research sub-questions were:

(1) What physical characteristics of school facilities contribute to perceptions of safety for teachers?
(2) How do relationships with colleagues within the school environment influence perceptions of teacher safety?
(3) How do the practices of school administrators influence perceptions of safety for teachers? and
(4) How does a principal's adherence to division safety policies influence teachers' perceptions of safety?

Overview of the Study

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. To gain insight into these factors, the investigator conducted a study utilizing a mixed-methods research approach using an online survey tool. As only teachers were invited to participate in the survey, the researcher conducted purposive sampling. Descriptive tables for each question of the survey were created. The tables highlighted descriptive statistical trends gathered from the quantitative portion of the study as well as lists of common beliefs gained from the thematic analysis process. Potential relationships between perceptions of safety and school facilities, gender, years of experience, and level of school taught were highlighted.

Conceptual Framework

Jabareen (2009) defined a conceptual framework as "a network, or a plane, of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena" (p. 51). The purpose of this study was to explore the link between a teacher's perceptions of safety at their place of work with their school facilities, collegial relationships, administrative practices, and safety policies and practices within the school division. The conceptual framework (Figure 1) highlighted four areas pertaining to school divisions that can influence teacher perceptions of safety. These four areas align with the research questions from this study.

Figure 1

Conceptual Framework

The conceptual model suggested that school safety directly influenced state school safety regulations that in turn impacted school division safety responsibilities. The school division areas of responsibility as dictated by state regulations included school facility updates, colleague relationships, school administrative practices, and division safety policies and practices. The

conceptual model suggested that these four areas pertaining to school division safety responsibilities directly influenced teachers' perceptions of safety in schools. The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. The researcher aimed to explore connections between four areas of safety that may impact teachers' perceptions of safety in schools. These four areas were physical characteristics of schools, relationships with colleagues, school administration practices, and the principal's adherence to division safety policies.

Definition of Terms

For clarification purposes, frequently used vocabulary terms were defined for the readers. The following terms were used frequently throughout the study and findings: *administrative practices, colleagues, safety policies, school facilities, and school factors.* For this study, these terms were defined as follows:

Administrative Practices were defined as any activity that the school administrators perform related to school leadership and teacher support. Dahlkamp et al. (2017) found administrative supportive practices to be the strongest factor in teacher retention. Goodwin and Jones (2019) argued that strong school environments created by administrators are the best approach to school safety.

Colleagues were defined as anyone with whom a teacher works and interacts regularly. Colleagues play an important role in the creation and sustainability of a positive school climate, which can lead to lower instances of school violence (Barnes et al., 2012).

Safety Policies were defined as any written or adopted federal, state, or School Board procedures intended to keep any stakeholder inside of a school safe. These stakeholders can include students, teachers, administrators, security personnel, and visitors. School safety policies

and practices have changed significantly since the 1980s as research has shown that once-popular zero-tolerance safety policies did little to reduce crime in schools or make them safer (Demitchell & Rath, 2019; Mears et al., 2018).

School Facilities were defined as any physical space on a school campus that teachers use or occupy during their workday. Safe and secure school facilities are an essential element of a successful educational institution (Kowalski, 2002).

School Factors were defined by Leonard (2016) as "facility characteristics, collegial relationships, presence of school policies, and administrators' adherence to safety policies" (p. 4).

Limitations

A study limitation is a perceived weakness within the design that could impact the results of the study (Ross & Bibler Zaidi, 2019). The first limitation of this study was that the researcher was the principal of one of the schools at which 71 potential survey participants were employed. The teachers at this school may be compelled to not only participate in the study but also provide positive feedback in both the quantitative and qualitative sections of the survey. Prior to sending the survey to staff, the researcher, through email communication, reminded potential participants that the survey would be coming out and that their participation was optional. The researcher encouraged staff to provide their honest feedback as the survey was anonymous. The second limitation was that teachers who participate may be compelled to participate and provide positive feedback because the survey pertained to their school district. The third limitation was that this study was conducted during the COVID-19 pandemic which had the potential to skew data in a negative direction due to attribution bias caused by a new layer of fear existing in a teacher's experience (Haggag et al., 2019; "I'm scared," 2020). The

last limitation of this study was that the study took place in only one of the 19 school divisions in the educational Region IV of Virginia and the findings may not be generalized across the region.

Delimitations

Delimitations of this study included limiting the participants to only teachers in one public school division. The 559 potential participants only represented 49% of the workforce employed by the division. Further, the study did not include teaching staff in any of the private schools in the same geographic area.

Organization of the Study

In chapter one, an overview including the purpose statement, research questions, conceptual framework, the definition of terms, and the limitations and delimitations of the study was provided. Chapter two included a literature review of prior empirical research touching on school safety policies and practices, school climate, visible security measures, and school facilities. Chapter three provided the reader with an overview of the methodology as well as the survey tool used to complete this study. Chapter four included the data from the study, an analytical breakdown of the findings, and a discussion of both. Chapter five included the major findings from the study, implications of those findings, a discussion of how these data results align with the relevant literature, and suggestions for future research as well as potential recommendations for the local school division leaders.

Chapter Two

Review of Related Literature

Principals across the country find themselves dedicating more of their time to school safety without a clear consensus from experts as to what keeps schools safe (Rogers, 2019). School safety policies and procedures have evolved over the last twenty years. Madfis (2016) claimed that "in recent decades, highly-publicized school rampage attacks with multiple victims has caused widespread fear throughout the United States" (p. 39). Landrum et al. (2019) argued that schools need to move away from zero-tolerance practices, and focus on the threat assessment process and the emotional needs of students. Anderson (2019) maintained that the hardening of school facilities, including the presence of additional law enforcement officers, does little to change student behavior. Further, Goodwin and Jones (2019) claimed that a positive school environment created by school leadership is the best approach to school safety.

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. In this literature review, changes in school security and safety policies and practices over the past twenty years were examined. The role of the media and fear regarding policy decisions were summarized. The research on the effectiveness of zero-tolerance policies as well as alternatives to the policies was discussed. Safety drills and the impacts they can have on students were reviewed. Adoptions of visible security measures in schools, including both safety personnel and physical facility upgrades as well as the effectiveness of these measures were summarized. Further, this review examined how school climate and culture influence perceptions of school safety. Finally, this literature review highlighted the lack of available literature related to teacher perceptions of school safety.

Search Process

The search process for the literature was conducted primarily using the Virginia Tech Online Library search engine as well as Google. The interlibrary loan program was also utilized through Virginia Tech to secure books. Key terms searched included *school safety, fear, media, zero-tolerance, school security, school facilities, school climate, visible security measures, and teacher perceptions.* Searches were conducted between October 2019 and February 2021. Organizationally, all research was uploaded into Mendeley and then separated into categories based on the research and usability. After reviewing abstracts and articles, deeper searches for primary sources took place based on themes and reference lists from scholarly articles. Over 185 articles, dissertations, books, and websites were pulled for review. The research was separated based on relevancy to this study, and in total 111 sources were utilized to summarize relevant research in this review of the literature.

School Safety Policy and Practice Changes over Time

Multiple scholars have examined how the media and fear have influenced changes in school security over the past twenty years. Addington (2003), as well as King and Bracy (2019), claimed that the fear of school shootings is greatly exaggerated due to the intense media coverage that they receive. Rocque (2012) argued that the media "tended to overreact to school shootings, resulting in the public overestimating the risk of violence and homicide in schools" (p. 310). This fear, in turn, created a moral panic during which schools felt the need to act (Burns & Crawford, 1999; Goode & Ben-Yehunda, 2009). After Columbine, a 1999 Gallup poll found that nearly two-thirds of Americans believed that a similar incident could happen in their community, and one-third of students believed there were students in their school that could do something similar (Borum et al., 2010). Although it has been established that fear associated

with school violence is real, school shootings are rare. From 2000 to 2014, there were 117 school shooting fatalities (Landrum et al., 2019). In contrast, during that same time, there were 1,300 student-aged shooting fatalities outside of the school setting making students 130 times more likely to be a victim of gun violence outside of school than in it (Landrum et al., 2019).

Addington (2003) conducted a randomized study about student fear before and after the Columbine shooting. Using data from the National Crime Victimization Survey, Addington (2003) examined responses from 5,620 students who completed the survey before Columbine, and 2,777 students who completed the survey after the events at Columbine. Addington (2003) found that only 3.8% of the students surveyed reported more fear at school after the incident at Columbine, and that these students "experienced only slight increases in frequency of fear," and that 77% of students reported no fear at school (p. 380). Based on the data reported by Addington (2003), the levels of fear students felt after the incidents at Columbine were not as high as the media would have the public believe.

After the highly publicized Columbine school shootings, school divisions across the country implemented security policies and practices as well as facility upgrades. However, King and Bracy (2019) argued that these upgrades have "primarily been reactionary rather than evidence-based, stoked by highly publicized school shootings with mass casualties" (p. 280). Borum et al. (2010) claimed that "there is a paucity of empirical evidence to guide school administrators in developing emergency preparedness and crisis response plans for school shootings" (p. 34). Still, school divisions nationally felt the need to act to show the community that they were protecting their students (Johnson, 2017; Rogers, 2019).

Safety and Policy and Practice Changes

Zero Tolerance

Schools started implementing get-tough approaches as the juvenile crime rate in the United States spiked from the mid-1980s to the mid-1990s (Skiba, 2013). The strictest form of get-tough punishment is zero-tolerance policies (Skiba, 2013). One example of a zero-tolerance policy was the Gun-Free Schools Act of 1994. All states adopted it (Skiba, 2013). Zero-tolerance policies were originally designed to reduce violence, but most school districts expanded zero-tolerance policies to include drugs, alcohol, and tobacco (Simon, 2006; Skiba & Rousch, 2013). Schools expanding zero-tolerance policies after the Gun-Free Act of 1994 is noteworthy because juvenile crimes related to violence were on the decline (Sickmund & Puzzanchera, 2014).

Demitchell and Rath (2019) argued that in the past twenty years there is little evidence that zero-tolerance is an effective way to make schools safe. During the get-tough movement, school suspensions rose 80% from 1974-2012 (Sykes et al., 2015). Zero-tolerance policies have also been criticized for their disproportionate student discipline consequences. Losen and Skiba (2010) found that middle school Black males were suspended at nearly three times the rate of White males, and seven times the rate of White females. Heilbrum and Cornell (2015) had similar findings in their study of 306 high school principals in Virginia who completed the 2012 Virginia School Safety Audit. They found that Black students were suspended at more than twice the rate of White students. Further, Heilbrum and Cornell (2015) established that "school suspensions were higher in schools where principals endorsed the view that zero-tolerance disciplinary policies helped maintain order in schools" (p. 495). Fabelo et al. (2011) found that Black students were more likely than other races to be suspended for minor offenses. In

addition, Mears et al. (2018) claimed that "the benefits of get-tough policies remain largely undemonstrated and rest on questionable theoretical foundations" and that "to date, policymakers and school districts appear to have operated under the assumption that the policy shifts necessarily were effective" (p. 1358).

Safety Drills in Schools

States have started mandating lock-down or active shooter drills in public schools at an increasing rate, especially after Sandy Hook (Blad, 2017). In 2003-2004, 47% of school districts implemented intruder or active shooter drills with their students. By 2013-2014, 70% of public schools incorporated active shooter drills with their students (Blad, 2017). Parents have responded to these drills in different ways. Blad (2017) stated that "for some parents the idea of such instruction is chilling. Others, though, say it's a sad, but necessary sign of the times" (p. 4). Other groups of parents have petitioned school boards to eliminate active shooter drills from schools (Blad, 2017).

Some scholars suggested that active shooter, or intruder drills, could do more harm than good. Magliozzi (2018) argued that "training kids to take responsibility for their own survival while treating gun violence as inevitable may make schools - even those that are never the site of a shooting - feel unsafe" (para. 4). Further, he stated that "training exercises that instill fear may have negative effects on students" (para. 11). Krisch (2018) concurred with Magliozzi (2018). Magliozzi (2018) stated that "active shooter drills may undermine students' sense of security, triggering long-term psychological impacts" and that "there's scant evidence that students internalize skills acquired during drills" (para. 2).

Peterson et al. (2015) found that in some cases attempting to prepare students for a school shooting created more fear that an event may happen. Peterson et al. (2015)

conducted a study with 197 community college students. Of these students, 97 watched the training video *Shots Fired: When Lightning Strikes* and 100 students watched the documentary film of a school shooter entitled *Raising Adam.* After viewing the videos, the participants completed a survey assessing their beliefs on school shootings. Peterson et al. (2015) found that "students who watched either video felt more afraid that a shooting would occur on campus" than they did before watching (p. 127).

In other cases, parents perceived that school policies designed to alert teachers in the event of an emergency were among the most effective way to reduce gun violence in schools. Payton et al. (2017) sent surveys to parents regarding their expectations of high schools and how they prevent firearm violence. Of the 600 surveys sent, 257 (47%) parents completed and returned the survey. In their study, Payton et al. (2017) found that out of 37 separate anti-firearm policies, 96% of parents surveyed believed that schools having "an alert system to notify school personnel of a potential emergency" was either "very effective" or "somewhat effective." The second highest perceived anti-firearm policy was "work with law enforcement to design and implement an emergency response plan." Further, 93% of parents believed this policy was "very effective" or "somewhat" effective (p. 1124).

Price et al. (2016) conducted the same study as Payton et al. (2017) with high school principals. They sent the survey to 800 high school principals. Of these principals, 379 (44%) returned the completed survey. The principals surveyed perceived the anti-firearm policies differently than parents in the other study. Of the same 37 listed policies, principals believed the most effective policy was to "work with law enforcement to design and implement an emergency response plan" (p. 240). Unlike parents, principals believed having "an alert system to notify school personnel of a potential emergency" was the twelfth most effective way to reduce firearm

violence (p. 240). Further, Price et al. (2016) stated that "a significant portion of principals are at a loss as to what to implement because of a lack of empirical evidence on what is effective" (p. 234). Both of these studies highlighted the fact that the value placed on a specific safety measure can change depending on the stakeholder.

Kelly (2017) performed a qualitative study on school safety issues with principals in New Jersey. Kelly's (2017) study included 21 principals. The researcher found that "security policy and procedures was identified as the number one issue relevant to school shootings and safety" (p. 514). Further, the researcher found that "principals identified the knowledge and practicing policies and procedures on active shooter, lockdown procedures, shelter in place, fire drills, and bomb threats, as valuable tools in providing a safe and secure environment for students and faculty" at all levels of public education (pp. 214-215). Therefore, according to Kelly (2017), principals believed that safety drills need to continue to be practiced in schools as they are an effective way to prepare students for a potential emergency.

Intruder drills also have the potential to influence the manner in which young children play. Delaney (2017) performed a study in which she conducted weekly observations in the same pre-K classroom over nine months. Delaney (2017) wanted to explore the relationship between zero-tolerance policies and Code Red (intruder) drills with how children play. In this classroom, students were forbidden to play in a manner that represented violence, but they did complete Code Red drills. Delaney (2017) found that "Code Red drills, as the school-sanctioned version of playing at violence, became the new game of the children. In this way, the children pushed back against the incongruity of the zero-tolerance policy towards playing pretend violence and the sanctioned playing at real violence embodied in the Code Red drills" (p. 891).

Therefore, Delaney (2017) showed that young students who practiced intruder drills brought these practices into their daily playtime.

After the school shooting at Sandy Hook, the Commonwealth of Virginia implemented a policy regarding lock-down drills for students. In 2013, the Code of Virginia required every public school to perform two lock-down drills during the first 20 days of school, and two additional drills during the remainder of the year (Code of Virginia, 2013). In 2016, the Code of Virginia was changed. Schools still had to conduct two lock-down drills during the first 20 days of school, but one now had to be performed in September. Schools were still required to do two additional lock-down drills, but one was now mandated to be completed in January (Code of Virginia, 2016).

Alternatives to Zero-Tolerance Policies

One alternative to zero-tolerance policies is threat assessments. Woitaszewski et al. (2017) found that 39 states provide schools with resources for threat assessments, five states encourage them, and one state, Virginia, mandates them for threats of violence. King and Bracy (2019) believed that "threat assessment and crisis teams are one promising alternative to traditional security measures" (p. 286). Borum et al. (2010) argued that threat assessments are "a promising approach to violence prevention because it focuses on determining whether the individual (or group) actually poses a threat" (p. 35). Howover, Borum et al. (2010) acknowledged that a threat assessment only helps to prevent violence if the individual communicates their intentions before committing an act of violence. Landrum et al. (2019) maintained threat assessments are valuable because they allow schools to "help the threat-making student develop skills to solve the underlying problems that triggered their behavior through arranging for counseling or mentoring" (p. 40).

Dewey Cornell, a professor at the Curry School of Education at the University of Virginia, led the development of the Virginia Student Threat Assessment Guidelines in 2001 (Cornell & Sheras, 2006). Dewey Cornell also authored the *Comprehensive School Threat Assessment Guidelines: Intervention and Support to Prevent Violence*. Cornell has led or been a part of multiple studies examining the effectiveness of threat assessments in numerous school divisions both in and out of Virginia. From numerous studies, Cornell has found that threat assessments are an appropriate alternative to zero-tolerance policies to prevent violence in schools.

Cornell et al. (2004) conducted a field-test study examining 188 student threats that occurred in 35 different schools from two neighboring school divisions in Virginia. School administrators had reported all threats during the 2001-2002 school year. Each threat was examined using the Virginia Student Threat Assessment Guidelines. Cornell et al. (2004) found "the overwhelming majority of threats (70%) were judged to be transient threats that could be quickly and easily resolved" (p. 541). Further, school administrators only felt the need to use school suspension in 50% of the cases examined. In follow-up interviews of school administrators, Cornell et al. (2004) found that "student behavior was judged to improve in 43% of cases and worse in only 18% of cases" and that "student's relationship with intended victim was judged to improve in 32% of cases and worse in just 5% of cases" (p. 541). Cornell et al. (2004) did remind the reader that this study had several limitations, as it was a field study and not an experimental study. However, even with these limitations, this study provides information and data for educators looking for alternatives to zero-tolerance practices.

Strong and Cornell (2008) conducted a similar study using data from the Memphis City School (MCS) system, which had adopted the Virginia Student Threat Assessment Guidelines.

Strong and Cornell (2008) examined 209 student threats from the 2004-2005 school year. Due to the size of the MCS system, the Virginia Student Threat Assessment process was only used on students who had received at least a four-day suspension from the principal and had also been sent to a discipline hearing officer. The hearing officer made the referral for a threat assessment to be conducted. Unlike the previous study in Virginia where the majority of the threats were deemed transient, Strong and Cornell (2008) found that in Memphis only 49% of the threats were transient, while 51% were deemed substantive. The researchers claimed that "it is likely that the larger portion of more serious substantive cases in Memphis was due to the more selective sample of cases in Memphis" (p. 50). They found that the average number of future discipline referrals for students who had gone through the threat assessment process lowered by 55%. While this number suggests a positive impact of threat assessments, Strong and Cornell (2008) pointed out the need for a controlled study to determine if there is a correlation.

Nekvasil and Cornell (2015) conducted a retrospective quasi-experimental study on threat assessment use in middle schools. They examined data from 332 middle schools. Of these schools, 166 used the Virginia Student Threat Assessment Guidelines, 119 did not use threat assessments, and 47 used a model not based on the Virginia Guidelines. Nekvasil and Cornell (2015) found "schools using the Virginia Guidelines reported more favorable school safety conditions and climate compared with the two comparison groups" (p. 107). They also found that schools using the Virginia Guidelines had a 50% lower short-term suspension rate than schools that were not using them. Further, Nekvasil and Cornell (2015) found that "teachers reported feeling safer from violence in schools that used the Virginia guidelines" and that "staff members who received training were less worried about school shootings" (p. 108).

Cornell et al. (2011) performed a similar study at the high school level. They compared 23 high schools from a large Virginia school division that had implemented the Virginia Student Threat Assessment Guidelines with 26 high schools from three Virginia school divisions that had not. As with their middle school study, Cornell et al. (2011) found that high schools that adopted the Threat Assessment Guidelines saw a decline in long-term suspensions. Further, the authors found that schools using the guidelines averaged 3.9 long-term suspensions per 1,000 students, whereas the schools not using the guidelines averaged 10.9 long-term suspensions per 1,000 students. Further, Cornell et al. (2011) found a "79% reduction in bully infractions from the pre-training year to the post-training year, in contrast to the group of 26 schools not using the guidelines" (p. 175). In both the middle and high school studies, the researchers saw a decline in suspensions in schools that adopted the Virginia Student Threat Assessment Guidelines.

Cornell et al. (2012) conducted a randomized controlled study on 201 student threats of violence at school. The students who made the threats attended 40 different schools in Southeastern Virginia. Of these students, 100 went to schools that had implemented the Virginia Student Threat Assessment Guidelines, and 101 of the students went to schools that had not received the threat assessment training yet. Cornell et al. (2012) found that students who went to schools using the Virginia Guidelines were "more likely to receive counseling services and a parent conference, and less likely to receive a long-term suspension or alternative school placement" than students in schools not using the Virginia Guidelines (p. 100).

Maeng et al. (2019) conducted a study of 1,454 threat assessments performed in Virginia during the 2014-15 school year. They limited their study to threats made against teachers and students. They found that 84.5% (1,228) of the threats examined were peer to peer, with 27.4% considered serious by the threat assessment team. Of the 226 threats made towards a teacher,

30.1% were deemed serious. They found no statistical difference between the rate of attempted threats between peers and teachers. However, they did find that "threats against teachers were relatively more likely to result in an out-of-school suspension (OSS) and placement changes than threats against peers" (p. 6). Further, they found that of the 226 threats directed towards teachers, only 13 were attempted and that none resulted in injury. Therefore, schools that effectively implement the Virginia Student Threat Assessment guidelines could lower incidents of school violence, and be in a position to provide students with intervention services before potential threats occur.

School Culture and Climate

School culture and safety are often linked to education research. Barnes et al. (2012) conducted a study in 30 schools in the Eastern Cape Province in South Africa involving 900 students. For their survey instrument, they used the California School Climate and Survey. Barnes et al. (2012) found that "the better the school culture and school climate are at a school, the lower the level of school violence, as well as the fact that the lack of school safety contributes to learners experiencing higher levels of violence at schools" (p. 79). Further, they claimed that creating a positive school culture and climate is an effective way to address school violence. In the United States, Goodwin and Jones (2019) concurred with the findings from this study. They claimed that a positive school environment created by school leadership is the best approach to school safety. In addition, Fan et al. (2012) found that schools with strong authoritative climates had fewer instances of teacher victimization.

In some cases, the clarity and perceived fairness of school rules had a greater impact on student delinquency and perceptions of safety than the psychological climate of the building. Gottfredson et al. (2005) used data from The National Study of Delinquency Prevention in

Schools to see if there was a correlation between school discipline practices and the school psychological climate to student delinquency, student perceptions of safety, and teacher victimization. They used data collected from 254 secondary schools from across the United States. Goffredson et al. (2005) found that schools that had strong discipline management systems in which students perceived rules to be fair and clear reported fewer occurrences of student delinquent acts, and fewer acts of student victimization. Further, they found that while a positive psychological school environment did impact perceptions of teacher victimization, it did not impact student behavior or feelings.

Leonard (2016) conducted a study solely focused on teacher perceptions of safety in the classrooms and schools. As the superintendent of a rural Southern Virginia division, Leonard (2016) conducted a mixed-methods study using data collected from 133 teachers. The researcher found that teachers generally felt safe in their schools. Further, the researcher found that factors that influenced teacher perceptions of safety included SROs in the school, locked doors, the use of security cameras, a visible and supportive principal, and teacher colleague support. While this study solely focused on teachers, it did have two limitations. First, the research is from a very small division. Second, the researcher was the superintendent of the division and was analyzing trends in teacher perceptions of safety in schools. Leonard (2016) identified that her position in the division could have influenced teacher responses and would cause a potential research limitation.

Visible Security Measures

Tanner-Smith and Fisher (2016) defined visible security measures as security cameras, security personnel, and metal detectors. In the United States, the use of visible security measures has been met with skepticism from scholars. Mowen and Freng (2019) examined the

relationship between school safety measures and the actual perception of safety by students and parents. They designed a quantitative study using data from an Educational Longitudinal Study from the National Center for Educational Statistics from 2002. They examined data from over 15,362 10th-grade students, 13,488 parents, 7,135 teachers, 743 principals, and 718 librarians from 750 schools. They argued that little is known about the relationship between visible security measures and school safety and in their study, they found that increased security measures lead to decreased perceptions of school safety. Addington (2009), who has studied school safety extensively since the tragedy at Columbine, concurred with Mowen and Freng (2019). Addington (2009) found that "it is unclear whether these security measures work and to what extent they might generate negative consequences for students and schools" (p. 1442).

Tanner-Smith and Fisher's (2016) findings concurred with those of Mowen and Freng (2019) and Addington (2009). They conducted a study looking at data from the School Crime Supplement to the National Crime Victimization Survey including 38,707 students and the School Survey on Crime and Safety including 10,340 schools. Tanner-Smith and Fisher (2016) looked at student and administrator reported surveys. Their goal was to see if there was a connection between visible security measures in schools and student academic success, attendance, and postsecondary goals. When examining the student surveys, Tanner-Smith and Fisher (2016) found that a school's visible security measures had a "minimal" impact on academic performance and postgraduate goals (p. 204). However, they did find that truancy rates may be higher in schools that used metal detectors and security personnel. When examining the administrator surveys, the researchers found that, in some cases, schools that incorporated visible security measures did worse in terms of academics and attendance. When

examining both studies together, they found “no evidence that visible security measures have consistent beneficial effects on adolescents’ academic outcomes” (p. 204).

Security Cameras

As of 2018, 81% of schools in the United States reported using security cameras in schools (Musu-Gillette et al., 2018). However, the data on the impact of security cameras in schools, in terms of both student perceptions of safety as well as crime prevention, has been inconsistent. Some scholars argued that the presence of security cameras in schools can lower student perceptions of safety (Johnson et al., 2018; Mowen & Freng, 2019; Perumean-Chaney & Sutton, 2013). Others argued that the use of security cameras in schools can potentially violate student rights depending on their use and can encourage zero-tolerance practices (Perry-Hazan & Birnhack, 2018). Further, some researchers have found that security cameras do little to decrease crime in schools (Fisher et al., 2019).

Johnson et al. (2018) conducted a study looking at the impact of security cameras and SROs in schools had on student perception of safety, equity, and support. Using the Maryland Safe and Supportive Schools Initiative, Johson et al. (2018) accessed data from 54,350 students from 98 middle and high schools from 13 school districts. They took a sample of 25 high school classes and 18 middle school classes for their analysis. Concerning security cameras, they found two trends. First, more security cameras placed on the interior of a school building correlated to lower perceptions of student support. Second, more cameras placed on the exterior of a school building correlated to higher perceptions of student support. It would appear from the research of Johnson et al. (2018) that the placement of security cameras matters when it comes to student perceptions of safety.

Perumean-Chaney and Sutton's (2013) research supported that of Johnson et al. (2018). They examined data from the National Longitudinal Study of Adolescent Health. The study consisted of 13,386 students nested in 130 schools. They found that security cameras in schools reduced perceptions of safety. However, while their findings showed that security cameras did cause a reduction in student perceptions of safety, the impact was not statistically significant. Mowen and Freng (2019) had similar findings when they examined the Educational Longitudinal Study from 2002. They found that schools that had more visible security measures that included security cameras reported lower levels of student perceptions of safety. Additionally, Mowen and Freng (2019) found that parent perceptions of school safety decreased as visible security measures, including security cameras, increased.

Some researchers questioned the ethical use of security cameras in schools in regards to student due process rights. Perry-Hazan and Birnhack (2018) performed a qualitative study with 27 principals about security camera use. Of these principals interviewed, 22 used security cameras in their schools, and five did not. Perry-Hazan and Birnhack (2018) found that principals who used security cameras in their schools did so for three reasons: gathering evidence for discipline, real-time monitoring, and building trust by refraining from viewing the cameras. During their interviews, they found that some principals admitted to attempting to elicit confessions from students with the threat of security camera footage without actually having viewed the cameras. In other words, some principals who were interviewed by the researchers tricked students into confessions with the idea that their act was easily viewable on security footage, even though no footage had been viewed. Perry-Hazan and Birnhack (2018) argued that this type of student interview tactic would break down trust between students and principals, and not build it.

School Resource Officers

School resource officers have been assigned to work in schools since the mid-1900s, but their presence has increased dramatically as school shootings became more mainstream (Theriot, 2016). However, the research on the impacts SROs have on both student perceptions of safety and prevention of school crime is differs depending on the study. Juvonen (2001) claimed that the present officers in schools breed "mistrust" among students and negatively impact the school climate (p. 3). Others have noted that an increased presence of SROs in schools has not decreased student discipline infractions (Anderson, 2018), nor has it decreased reports of student bullying (Devlin et al., 2018). Nevertheless, some researchers have found a positive correlation between SROs and how students perceive them (Theriot, 2016).

Theriot (2016) found a positive correlation between student interactions with SROs and their perceptions of them. Theriot (2016) conducted a study with 1,956 students from grades 6-12 from 12 schools in one division in the Southeastern United States. These students completed a comprehensive voluntary 60-question survey on their experiences with school violence, perceptions of safety at school, and their opinions of the police. In regards to student perceptions towards SROs, Theriot (2016) found that "any level of interaction with an officer is associated with more positive attitudes" (p. 456). Moreover, the researcher found that an increasing number of interactions lowered "connectedness" to the school (p. 446). Finally, Theriot (2016) determined that students who experienced more violence in schools reported more negative experiences with SROs.

Anderson (2018) found that the presence of SROs in schools did not lower student discipline infractions. Anderson (2018) conducted a study to examine the effectiveness of the state-funded SRO program in 471 North Carolina middle schools over seven years. Anderson

(2018) found no relationship between an increase in funding for SROs in schools and a decrease in reported student discipline infractions. Further, Anderson (2018) found no relationship between the percentages of racial enrollments and discipline infraction reporting. However, Anderson (2018) did find that larger schools with SRO presence reported more student infractions. Anderson's (2018) research showed, at least in middle schools in North Carolina, that SROs in schools do not lower student infraction numbers, but the size of the school can impact the reported numbers with larger schools reporting larger numbers.

Scholars have also examined the impact SROs in schools have on bullying in school. Devlin et al. (2018) examined three-year data from 480 schools in the United States. They used the School Survey on Crime and Safety funded by the U.S. Department of Education. Devlin et al. (2018) sought a relationship between student reports of bullying and the presence of an SRO in the school. Devlin et al. (2018) found that SROs in schools do not impact the level of bullying reports on a significant level.

Earlier research from Na and Gottfredson (2013) supported Delvin et al. (2018). Na and Gottfredson (2013) also looked at the School Survey on Safety and Crime from the same period as Devlin et al. (2018). They found that an increased police presence in schools did not correlate with a decrease in low-level student infractions reported. On the contrary, Na and Gottfredson (2013) found that "for no crime type was an increase in the level of police significantly related to decreased crime rates" (p. 643). Further, Na and Gottfredson (2013) found "no evidence suggesting that SRO or other sworn law-enforcement officers contribute to school safety" (p. 643). Johnson et al. (2018) had similar findings in their study. They found "no associations between security officer presence and student perceptions of support" (p. 735). While SROs

have been present in schools since the mid-1900s, the research above showed that SROs have little impact on lowering student crime in schools.

Researchers have also looked at the impact that SROs have had on lowering serious acts of student violence in schools. Swartz et al. (2016) studied data from the 2010 School Survey on Crime and Safety. The data consisted of surveys filled out by administrators from 1,699 schools across the country. Swartz et al. (2016) sought to identify any relationship between schools with SROs in the building and lower reports of violent school crime. They defined violent school crime as "rape, sexual battery, robbery (strong armed and armed), aggravated assault (with a weapon), and threats of aggravated assault" (p. 471). They found that the presence of an SRO in a school "associated with higher rates of reported serious violence" and that "schools that used SROs did not reduce the occurrence of serious violent acts" (p. 476). According to the research of Swartz et al. (2016), schools that had an SRO placed in their buildings reported higher numbers of violent student crime, and that overall, SROs had little to no impact on lessening those types of student crimes.

Metal Detectors

Metal detectors first appeared in schools in Detroit during the 1989-1990 school year ("Are Metal Detectors," 2020). However, in the 30 years since schools first started using metal detectors, their use has not seen significant growth around the country. As of 2019, 2% of elementary schools, 7% of middle schools, and 10% of high schools in the United States used metal detectors in their buildings ("Are Metal Detectors," 2020). Research on the effectiveness of metal detectors, as well as their impact on perceptions of safety within schools, was inconsistent.

Some researchers posited that visible security measures, including metal detectors, increase fear in school. Schreck and Miller (2003) conducted a study looking for causes of student fear in schools. They examined data from the National Household Educational Survey from 1993. They studied survey responses from 6,418 students in grades 6-12. Schreck and Miller (2003) found that some forms of visible security measures in schools that included metal detectors are statistically related to fear of crime in that they "correspond with higher levels of student fear" (p. 71). The strength of their findings could be questioned as they used data that was already a decade old when their research was published in 2003, and major events such as the shooting at Columbine, Sandy Hook, Virginia Tech, and Parkland had not yet taken place when their data were collected. However, their research fits the theme of future studies.

The research of Backman et al. (2011) aligned with that of Schreck and Miller (2003). They conducted a study on perceptions of fear in school for White and Black students and the effects of school security measures. They examined data from the 2005 School Crime Supplement to the National Crime Victimization Survey. Backman et al. (2011) found that "the presence of guards and metal detectors both significantly increased overall perceptions of fear" (p. 720). Perumean-Chaney and Sutton's (2013) study concurred with that of Backman et al. (2011). They found that "the use of metal detectors significantly diminished the students' feelings of safety at school" (p. 579). Once again, the data in these studies showed that visible security measures, including metal detectors, led to increased perceptions of student fear in schools.

Gastic (2011) also found that metal detectors negatively impact student perceptions of safety in schools. Using data from the National Longitudinal Study of Adolescent Health, Gastic (2011) evaluated 7,618 student responses. The researcher determined that "attending a school

where metal detectors were in use was significantly and negatively associated with students' sense of safety at school" (p. 494). Additionally, Gastic (2011) discovered that the setting of the school in which metal detectors were present influenced student perceptions of safety as well. Gastic (2011) found that the association between metal detectors and student fear was 13% lower in urban schools compared to rural and suburban schools. According to Gastic (2011), the location of the school containing metal detectors played a role in perceptions of student fear related to the metal detectors.

In a separate study, Gastic and Johnson (2015) found that daily metal detector searches in school were not always based on crime, but in some cases on the percent of minority students in the school. Gastic and Johnson (2015) analyzed data from the 2007-2008 School Survey on Crime and Safety. The study included responses from 2,560 school locations. They found that 91% of schools that perform daily metal detector searches were not just high-violence schools, but also high-minority schools. They concluded that "majority-minority high-violence schools were significantly more likely to conduct daily metal detector searches than high-violence public schools" (p. 308). Therefore, according to the research of Gastic and Johnson (2015), daily metal detector searches are more likely to take place in high-violence schools that also contain a high-minority population.

Like Backman et al. (2011), Kupchik and Farina (2016) conducted a study using the School Crime Supplement to the National Crime Victimization Survey when examining student perceptions of school punishment and security, and bully victimization. However, they examined data from 2009. Kupchik and Farina's (2016) study contradicted the findings of Backman et al. (2011). They gathered data from 4,288 students between the ages of 12 and 18. After analyzing this data, Kupchik and Farina (2016) found that "students in schools with metal

detectors report lower odds of in-person bullying, particularly verbal bullying" (p. 157). Using the same survey data, but four years later, Kupchik and Farina (2016) found that some visible security measures in school, including metal detectors, decrease perceptions of fear, which is the opposite of earlier research.

The findings of Tillyer et al. (2011) aligned with those of Kupchik and Farina (2016). They conducted a multilevel opportunity prospective study on the effects of school crime prevention strategies involving 2,644 7th-grade students from 58 schools in Kentucky. They examined the five following strategies of crime prevention: school efficacy, police involvement in the school, presence of metal detectors, locker checks, and backpack bans. Of the five strategies studied, Tillyer et al. (2011) found that "only one strategy (metal detectors) was significantly related to lower levels of student fear" (p. 270). They found that students at school with metal detectors "were less likely to be fearful of serious violence, despite the fact that metal detectors were not actually associated with lower levels of violence" (p. 267). Therefore, Tillyer et al.'s (2011) study, along with the Kupchik and Farina (2016) study, directly contradicted older studies. From the studies above it would appear that the perception of metal detectors in regards to student safety has improved as time has passed.

The evidence of the effectiveness of metal detectors stopping school crime differs as well. Schildkraut and Grogan (2018) argued that while metal detectors may provide security from a visibility standpoint, there is little evidence pointing to their prevention of school shootings or students bringing weapons to school. Tanner-Smith et al. (2018) argued that visible security measures including metal detectors are only effective in preventing school property crime and that there is "little support for predictions based on routine activity theory that visible security measures will reduce school crime by deterring motivated offenders" (p. 113). Hankin

et al. (2011) concurred with Schildkraut and Grogan (2018) and Tanner-Smith et al. (2018). They studied 15 years of research on metal detectors and found insufficient evidence and insufficient data to show that metal detectors lessen crime in schools, and may also "detrimentally impact student perceptions of safety" (p. 100).

School Facilities

The physical layout and appearance of a school can impact student perceptions of safety. Wilcox (2018) conducted a qualitative photo-elicitation study in one high school in rural Virginia. Wilcox's (2018) study included 14 participants both students and teachers. Participants in the study were asked to take pictures of areas of their school that they thought was safe as well as areas where they felt unsafe. Wilcox (2018) found that students felt safe in areas where adult supervision was present such as classrooms and hallways and unsafe in areas where supervision was light such as entranceways. In regards to teachers, Wilcox (2018) found that they also felt safe in the classroom, but felt unsafe in hallways. Further, Wilcox (2018) found that teachers felt safe at entranceways as well, which was the opposite of how students felt.

Researchers have examined how the physical state of a school, as well as the age of the school, can impact perceptions of safety for students and adults alike. Walton (2011) studied the impact that the physical design and age of a school can have on perceptions of safety. Walton (2011) conducted a qualitative study with principals who worked in pre-Columbine designed schools, principals who worked in post-Columbine designed schools, and architects who worked in the field of school design. The researcher found that all three groups believed that the location of a school was very important to school safety, that restroom and locker rooms were areas of concern, and that a large number of entrances and exits were problems. Principals from pre-Columbine schools were mainly concerned with the number of doors they had to account for as

well as the fact that many of the schools had not been updated in terms of safety since they were built. Principals from newer schools were much more concerned with the flow of students in their buildings.

Trosper (2017) replicated Walton's (2011) study and found similar results. Trosper (2017) conducted interviews with architects who had designed schools that were built both before and after the events at Columbine in 1999. Further, Trosper (2017) interviewed principals that worked in schools that fit in these time parameters. The researcher found that the main concerns for principals and architects who worked with both sets of schools were access control and visibility. Principals from the newer schools were concerned with the student movement in the buildings. The architects interviewed felt the need to balance safety and design elements in schools.

Conclusion

The purpose of this literature review was to examine changes in school safety policies and practices in schools over the past twenty years. Principals across the country are dedicating more of their time to school security issues without any clear consensus on what keeps students safe (Rogers, 2019). In the mid-1980s, schools started implementing zero-tolerance policies (Skiba, 2013). Scholars have argued that these zero-tolerance policies did little to increase students safety, increased suspension rates in schools, and disproportionately targeted minority students (Demitchell & Rath, 2019; Fabelo et al., 2011; Heilbrun & Cornell, 2015; Losen & Skiba, 2010; Mears et al., 2018; Sykes et al., 2015). Others have argued that student threat assessments are a valuable alternative to zero-tolerance policies in efforts to lower student suspensions and acts of student violence (Cornell et al., 2004; Cornell et al., 2011; Cornell et al.,

2012; King & Bracy, 2019; Maeng et al., 2019; Nekvasil & Cornell, 2015; Strong & Cornell, 2008).

While the fear associated with school shootings is real, researchers have argued that this fear has been greatly exaggerated by the media (Addington, 2003; King & Bracy, 2019; Roque, 2012). Others argued that this exaggerated fear has led to policy and facility upgrades that have largely been reactionary and based on the need for schools to show the community that they are in some way responding to these situations (Borum et al., 2010; Johnson, 2017; King & Bracy, 2019; Rogers, 2019). After the shooting at Sandy Hook elementary school, states started mandating lock-down or active shooter drills in public schools (Blad, 2017). Some scholars argued that these drills can do more harm than good to students and can in some cases create more fear of an event taking place (Blad, 2017; Krisch, 2018; Magliozzi, 2018; Peterson et al., 2015). Further, the importance that stakeholders placed on these drills varied. Researchers have found that in some cases parents valued anti-violence drills more so than school administrators (Payton et al., 2017; Price et al., 2016). In other cases, principals believed that security drills are the most effective tool they have regarding school safety (Kelly, 2017). School climate and culture also play a role in keeping schools safe. Some have found that schools with strong perceived climates and cultures had lower levels of violence (Barnes et al., 2012). Further, schools with strong authoritative climates created by school leadership with clear rules reported fewer acts of student delinquency and teacher victimization (Fan et al., 2005; Goodwin & Jones, 2019; Gottfredson et al., 2005).

Many studies have been dedicated to the impact that visible security measures in schools such as security cameras, school resource offices, and metal detectors have on perceptions of safety. In the United States, researchers found that more visible security measures can

negatively impact student perceptions of safety and have a minimal impact on preventing crime (Addington, 2009; Mowen & Freng, 2019; Tanner-Smith & Fisher, 2016). Security cameras in schools have been found to lower student perceptions of safety (Johnson et al., 2018; Mowen & Freng, 2019; Perumean-Chaney & Sutton, 2013). An increased presence of SROs in schools does not decrease student discipline infractions, does not decrease serious acts of violence, and does not lower instances of student bullying (Anderson, 2018; Devlin et al., 2018; Swartz et al., 2016). Conversely, some scholars have found a positive correlation between the number of times a student interacts with an SRO and their perception of them (Theriot, 2016). Research on metal detectors in schools was inconsistent as well. Many researchers have found that the presence of metal detectors in schools increases student perceptions of fear and are in some cases implemented in schools based on minority population in the school and not the level of crime (Bachman et al., 2011; Gastic, 2011; Gastic & Johnson, 2015; Perumean-Chaney & Sutton, 2013; Schreck & Miller, 2003). In contrast, one study found that the presence of metal detectors was the only strategy related to lowing student perceptions of fear at school (Tillyer et al., 2011). In regards to the school building itself, students felt safest in well-supervised areas where teachers are present and not safe in unsupervised areas, while teachers felt safe in classrooms, but not in hallways (Wilcox, 2018). Further, the safety concerns of the building design changed depending on the age of the building (Trosper, 2017; Walton, 2011).

Lack of School Safety Research Specifically Targeting Teachers Perception of Safety

The majority of the research on perceptions of safety in schools referenced in this literature review focused on three main groups of stakeholders: students, principals, and parents. According to the research, very few scholars focused on teachers. Although Mowen and Freng (2019) looked at teacher responses from the Educational Longitudinal Study, their conclusions

focused on how students perceived physical security measures in schools. While Nekvasil and Cornell (2015) found that teachers who worked in schools using the Virginia Student Threat Assessment Guidelines felt safer than those who worked in schools that did not, they primarily researched student suspension rates related to the implementation of the Virginia Guidelines. Wilcox (2018) specifically studied how building features impact students' and teachers' perceptions of safety. Still, Wilcox (2018) only had 14 total participants, all of whom were from one high school in rural Virginia, which according to the researcher, was a limitation to the study.

Research dedicated to teacher perception of school safety policy and practice is limited. In the search and review of literature, only one researcher dedicated their entire study to teacher perceptions of safety. Leonard (2016) solely focused on factors that impacted teacher perceptions of safety at school. Considering the changes in school security practices over the last twenty years, more research may be needed on how these changes impact teachers. As Leonard's (2016) study only focused on a small school division in rural Virginia, more studies of this nature may be warranted in different locations in the state to see if the findings correlate. Studies similar to Leonard's (2016) study could be beneficial in understanding how teachers perceive school safety policies and procedures they work with daily. An extension to Leonard's (2016) study in a larger division may garner valuable information on what teachers perceive to keep them safe. More research specifically aimed at teachers and their perceptions of school safety measures could add valuable information to the field of study.

Chapter Three

Methodology

In this chapter, the research design for this study was presented. The purpose, as well as the research questions, was re-stated. A summary of the research design, as well as a justification for the chosen design, was provided. An outline of needed data, and the collection procedures, were supplied. An explanation and review of the instrument design, the validation process, the data treatment, and management methods, as well as data analysis techniques, were described. The study was an extension of the methodology of Leonard's (2016) study entitled *What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?* Leonard's (2016) research questions and survey tool were modified or replicated, with permission, to extend the study (see Appendix H).

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. The researcher explored connections between four areas of a teacher's experiences with their perceptions of safety. The four areas were physical characteristics of schools, relationships with colleagues, school administration practices, and the principal's adherence to division safety policies. The main research question was *What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?* The four research sub-questions were:

(1) What physical characteristics of school facilities contribute to perceptions of safety for teachers?
(2) How do relationships with colleagues within the school environment influence perceptions of teacher safety?

(3) How do the practices of school administrators influence perceptions of safety for teachers? and

(4) How does a principal's adherence to division safety policies influence teachers' perceptions of safety?

Research Design

As a teacher's experiences, the buildings they work in, and the classrooms they use vary, a survey instrument with both quantitative and qualitative elements was used to gauge their perceptions of safety regarding their school buildings, their relationships within those buildings, their administrative team, and the division safety policies. A survey with quantitative elements provides a description or numerical value of what the sample population thinks, believes, or perceives (Cresswell, 2014). Further, a study containing descriptive nonexperimental quantitative pieces allows a researcher to seek patterns that can be described using frequencies and percentages to draw meaning from the data (McMillan & Wergin, 2010).

As the purpose of the study was to describe how various elements of a teacher's professional roles impact their perceptions of safety, the survey instrument also included qualitative elements. Qualitative research was used to explain how people feel about their experiences and any meaning that comes from them (Merriam & Tisdell, 2016). Hammarberg et al. (2016) argued that qualitative methods should be used to seek answers about experiences and perceptions from the viewpoint of the participant. Therefore, according to Merriam and Tisdell (2016) and Hammarberg et al. (2016) including qualitative elements in this study could be appropriate.

The use of mixed methods research has increased over the past 25 years (Hanson et al., 2005). Scholars have realized that both quantitative and qualitative research has value and that

they could gain information from utilizing both methods during a study (Creswell & Hirose, 2019). The quantitative portion of a mixed-methods provided a "structured and no-nonsense measurement" that "cut through the tangle of competing claims," whereas the qualitative portion of a mixed-method study will "lend meaning and insight to what otherwise would be a sterile display of statistics" (McMillan & Wergin, 2010, p. 134). As the purpose of this study was to examine teacher perceptions of their safety in schools, utilizing both quantitative with qualitative elements in a mixed-methods design could be appropriate.

Site Selection

The study took place in a medium-sized school division located in Region IV in Virginia. Earthman (2019) defines a medium-sized school system as a division that has more than 2,500 students, but no more than 75,000 students. The school system in the study served 8,009 students. This site was selected for this study because the researcher was employed in the division. Because only teachers were invited to participate in the study, purposive sampling was be used. Purposive sampling is used when making a deliberate choice about who to include in the study based on shared qualities or experiences (Etikan et al., 2016). As only teachers were included in the study due to the commonality of their responsibilities, purposive sampling was utilized in this study.

The chosen school division consists of six elementary schools, two middle schools, two high schools, and an alternative education facility. The elementary schools were originally built in 1960, 1965, 1972, 1992, 1997, and 2008. The two middle schools were built in 1948 (renovated and reopened in 2002), and 1977. The two high schools were built in 1969 and 2008. The alternative school was built in 2006. The enrollments of the elementary schools in the order of their build dates are 637, 478, 533, 532, 636, and 655. The enrollments of the middle schools

in order of build dates are 855 and 1,106. The enrollments of the high schools in order of build dates are 1,152 and 1,425. Students in the alternative school stay on the rosters of their base schools. Refer to Table 1 for a summary of the schools' build dates and enrollments.

Table 1

School Division Make up

School	Year Built	Student Population
Elementary School A	1960	637
Elementary School B	1965	478
Elementary School C	1972	533
Elementary School D	1992	532
Elementary School E	1997	636
Elementary School F	2008	655
Middle School A	1948, 2002[a]	855
Middle School B	1977	1,106
High School A	1969	1,152
High School B	2008	1,425
Alternative Program	2006	NA[b]
Total		8,009

Note: The table provides a summary of the year of occupancy and enrollment numbers for 11 schools in the school district.

[a] Middle School A was renovated in 2002.

[b] Student enrollment for the Alternative Program is included in the student enrollment of their perspective schools.

The acreage of the elementary schools ranges from 9.67 to 37.68 acres. The acreage of the smaller middle school is 18.23 acres. The second middle school shares a campus with one of the high schools as well as the alternative school totaling 86.91 acres. The second high school's campus covers 75 acres. Two of the elementary schools utilize trailers. The first has four trailers housing two Pre-K classes, an art classroom, and a music classroom. The second elementary school has a large pod-like trailer that houses four 4th-grade classrooms, and a smaller trailer that houses a Pre-K class.

Sample Population

All teaching personnel in the school division were invited to participate in the study. The potential sample size included all of the 559 teachers employed by the division. Of these teachers, 312 work in one of the four secondary schools, and 247 work in one of the six elementary schools. Teachers at the alternative school work with both middle and high school students. In terms of teaching experience, 215 teachers have 0-5 years of experience, 115 have between 6-10 years, 77 have between 11-15 years, 72 have between 16-20 years, 44 have between 21-25 years, 18 have between 26-30 years, and 18 have over 30 years of experience. For a summary of the potential participant characteristics, see Table 2 and Table 3.

Table 2

Total Number of Participants by Teaching Assignment

Elementary Teachers	Secondary Teachers	Total
247	312	559

Table 3

Number of Participants by Years of Experience

Years of Experience							
0-5	6-10	11-15	16-20	21-25	26-30	Over 30	Total
215	115	77	72	44	18	18	559

Data Collection Tool

The primary method of data collection for this study was an electronic survey. Dr. Nancy Leonard (2016) created the survey tool. Both the survey questions, as well as the survey tool were used with permission from Dr. Leonard (see Appendix H). The survey was distributed to all teachers using the web-based survey tool Qualtrics through Virginia Tech. Survey data were

downloaded into a Microsoft Excel sheet for disaggregation purposes. Electronic data capture is appropriate as it allows for efficiently collected and stored data in a manner that can reduce research time and costs (Mosa et al., 2015). Further, electronic data collection can remove the difficulties that come with paper-pencil data collection such as hard-to-read responses and lost data, which can be difficult to correct (Pace & Staton, 2005).

The survey tool consisted of 25 questions (see Appendix A). The survey should have taken participants approximately 10 minutes to complete. The first three questions provided the researcher with teacher characteristics that were used for comparison purposes. Participants were given the option to skip these three questions if they are concerned about survey anonymity. The survey included 17 quantitative questions. Each of these questions incorporated a five-point Likert scale to further explore the research questions of the study. Likert scales are a popular way to quantify how people feel about topics or issues (Bishop & Herron, 2015). Studies that include Likert scales allow the research to "capture feelings, actions and pragmatic opinion of the participants about mutually exclusive issues around phenomenons under study" (Joshi et al., 2015, p. 398). As the researcher attempted to capture teachers' perceptions about school safety factors, utilizing a Likert scale for at least part of the survey tool could be appropriate.

The survey included five qualitative questions. These questions were open-ended. Data from these questions were examined using thematic analysis. A thematic approach to qualitative data allows for flexibility and modification of reporting as needed (Braun & Clarke, 2006). Further, thematic analysis allows the researcher to summarize key aspects of large studies while incorporating a well-detailed approach to qualitative data reporting (King, 2004). After the qualitative data were gathered, the phases of thematic analysis highlighted by Nowell et al.

(2017) were implemented. These included: 1) familiarizing yourself with your data, 2) generating initial codes, 3) searching for themes, 4) reviewing themes, 5) defining and naming themes, and 6) producing the report. Merrian and Tisdell (2016) also touted the importance of coding qualitative data before looking for patterns and groups of information. After starting the thematic analysis process, the constant comparative process of examining the qualitative data began. The constant comparative process is appropriate for those who are "not seeking to build substantive theory or grounded theory" but still desire to consistently examine qualitative data to establish tentative theory (Merriam & Tisdell, 2016, p. 228). The researcher kept a themed notebook in electronic form while coding, naming, and defining themes for the final report. Comparing the quantitative data from the Likert scales with the thematic analysis from the qualitative portion of this study could offer valuable insights into the research and be an appropriate method of study. Refer to Table 5, Table 6, Table 7, Table 8, and Table 9 for a summary of the survey questions related to the research questions from the study.

Table 4

Main Research Question

What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?
4. I feel safe at school.
5. I am concerned about outside intruders coming into my school and committing acts of violence.
6. I am concerned for my safety due to student behavior.
7. I feel as safe now as a teacher as I felt, or would have felt, ten years ago as a teacher.

Table 5

Research Sub-Question One

What physical characteristics of school facilities contribute to feelings of safety for teachers?
8. Locked exterior doors make me feel safe at school.
9. Locked doors between the main office of the school and the remainder of the school that prevents visitors from accessing the classrooms make me feel safe.
10. Security cameras on the interior and exterior of a school make me feel safe at school.
11. Having a classroom located inside the main school building makes me feel safe.
12. It is important to my feelings of safety to have a resource officer in my school building.
13. What do you feel are the most important school and classroom facility characteristics in making you feel safe as a teacher?

Table 6

Research Sub-Questions Two

How do relationships with colleagues within the school environment influence perceptions of teacher safety?
14. I feel safe when I work in a school with colleagues who support me.
15. My colleagues come to my aid during a critical student incident.
16. How do colleague relationships influence your feelings of safety as a teacher?

Table 7

Research Sub-Question Three

How do the practices of school administrators influence perceptions of safety for teachers?
17. Having an administrator who is visible during the school day makes me feel safe at school.
18. Adherence to visitor policy by administration makes me feel safe at school.
19. The administrative practices of my school principal important to my feelings of safety.
20. The support of a building principal makes me feel safe at school.
21. What advice would you give to new principals to increase teachers' perceptions of safety in schools?

Table 8

Research Sub-Question Four

How does a principal's adherence to division safety policies influence teachers' perceptions of safety?
22. Are you knowledgeable about the school division safety policies?
23. Having a school crisis plan makes me feel safe at school.
24. Having a school division-wide crisis plan makes me feel safe at school.
25. Does the existence of school system policies pertaining to student discipline and crisis planning influence your feelings of safety as a teacher? If so, how?

The development and validation of a survey or questionnaire is a critical piece of the research process (Boateng et al., 2018). Tsang et al. (2017) highlighted the seven steps of validating a research questionnaire: 1) establish an expert committee, 2) identify dimensionality of the construct, 3) determine questionnaire format, 4) determine items format, 5) items development, 6) determine questionnaire length, and 7) review and revise initial items pool.

Leonard (2016) completed the validation process when she created this survey tool. Leonard (2016) validated the survey instrument with colleagues from the regional area of Southside Virginia where she conducted the original study. For the extension of Leonard's (2016) study, the researcher completed the validation process with several of his professional educational colleagues from Virginia Tech.

A study of this nature required several forms of approval. The researcher acquired the Collaborative Institutional Training Initiative (CITI) certificate in Social & Behavioral Research in the fall of 2020 (see Appendix G). Any study that involves human subjects also required approval from an Institutional Review Board (Parker, 2016). The researcher gained approval to perform this research from the Virginia Tech IRB in May of 2021 (See Appendix F). Further, permission from the school division was sought as the study involved its employees. The researcher requested division approval to conduct the study (see Appendix D). The researcher received written permission from the Executive Director of Student Services in the division to perform the study (see Appendix E).

Data Gathering Procedures

Upon meeting all pre-study requirements, the potential participants were contacted. Every teacher in the division received an email requesting their participation (see Appendix C). The email contained an explanation of what information the researcher is attempting to gather, the purpose of the study, as well as the confidentiality of the survey. Research has shown that response rates for electronic surveys are influenced by the participant's interests in the topic, communication about the study, and the confidentiality of the results (Saleh & Bista, 2017). Within the email, there was an electronic link to the survey tool for teachers to complete if they choose to do so. At the beginning of the survey, an informed consent document was provided to

anyone completing the survey (see Appendix B). Informed consent is an ethical requirement of behavior research as it is a means of protecting the rights and interests of the participants by providing them with a disclosure of the study, a basic understanding of the study, the voluntariness of the study, and the authorization to opt-out if they so choose (Grady et al., 2021). The survey window remained open for two weeks. Two reminder emails were sent to teachers seeking their participation. As these data are intended for publication purposes, the researcher should plan to store them securely for at least five years ("Retention of research," 2021). As the informed consent document did not require the participant's signature, that documentation was not stored.

Participant responses gathered through Qualtrics were downloaded into a Microsoft Excel sheet. All data were kept on a secured laptop that was protected by two-factor authentication. A daily backup to an external hard drive took place. Because data entry errors can impact statistical results, computer-based data gathering services that lower the risks of human error were implemented (Barchard & Pace, 2011). The data were analyzed using descriptive statistics. Descriptive statistics can include frequency distribution tables, percentages, and measures of central tendency to "give a summary about the sample being studied without drawing any inferences based on probability theory" (Kaliyadan & Kulkarni, 2019, p. 85). Tables summarizing total participation numbers, participants' years of experience, participants' gender, and participants' teaching levels were created. For survey questions describing levels of agreement, single-variable nonexperimental methods to describe the levels of agreeableness observed on the Likert scale questions were used. When analyzing survey questions relating to factors that influence teacher perceptions of safety, correlational nonexperimental methods were used to determine if relationships exist between the perceptions of safety and school factors as

well as demographic information, participants' experience, and levels taught. Correlational nonexperimental methods could be appropriate given the absence of treatment or manipulation and the absence of random selection.

The researcher sought patterns within these participant groups based on their responses to the Likert scale and the open-ended questions. Distribution tables for questions completed by the participants for all Likert scale questions were created as well as a summary of the most common themes found from the qualitative open-ended questions after the completion of the thematic analysis process. School factors that influence teachers' perception of safety in their classroom and school following the analysis of the Likert scale and open-ended survey questions were identified. Key terms and themes during the qualitative coding process were categorized. These factors were ranked by frequency. Possible relationships between perceptions of safety and participants' demographics, levels of experience, and levels taught were identified. Data collected from the Likert scale and open-ended questions were used to answer the main study questions and the four research sub-questions. These findings were compared to those from Leonard (2016) and current research.

To further Leonard's (2016) study, potential relationships between perceptions of safety in the classroom and school and several factors that include building characteristics, years of experience, gender, and teaching assignment were analyzed. Likert scale data were used to determine the impact of years of experience, teacher gender, and teaching assignment on the perceptions of safety considering the presence of specific building factors or threats. To measure the impact of these factors, the researcher used the thematic analysis process to establish a relationship between each factor and perceptions of safety in the school environment. Looking at the open-ended responses, the researcher aimed to identify patterns and themes that exist

related to years of experience, gender, and teaching assignment. Identified facility characteristics, colleague relationships, advice to principals, and the utilization of discipline and crisis policies were categorized to establish patterns and themes within years of experience, gender, and teaching assignment subgroups.

Bias Statement

The web-based survey platform, Qualtrics, through Virginia Tech was used to administer the survey. This venue provided participants easy access to survey questions and allowed them to complete the survey on their own time without time constituents. The electronic survey allowed for timely access to responses and more secure data collection. To safeguard against selection bias, the survey was available to all teaching personnel in the school district at all teaching levels (Infante-Rivard & Cusson, 2018). All teaching personnel was invited to participate in the survey and they were given the option to opt-out of participation. Participants received an email outlining the purpose of the survey, the study it supports, and information about survey participation. The survey made every effort for participant anonymity and did not collect identifying attributes. The survey collected consent at the beginning of the survey and this data were stored independent of survey data to ensure anonymity. The first three questions of the survey asked the participants to identify teacher characteristics; however, participants could select not to respond to these questions. These characteristics were used for comparison purposes only.

As data were recorded, the potential for self-selection and volunteer bias was monitored. Even though the survey was voluntary, because the researcher is an administrator in the school division, some teacher groups may believe they were compelled to respond to the survey (Tripepi et al., 2010). Additionally, some teacher subgroups that include teachers with specific

years of experience, gender, and teaching assignment may have elected to participate more than other groups within the subgroups. With this in mind, due to survey anonymity and participants' ability to opt out, the impact of self-selection bias was minimal. Furthermore, since the study analyzes staff perceptions, no experimental treatment was necessary; thus, the impact of bias decreases.

The potential threat of the Hawthorne or observer effect was taken into consideration. Participants may be compelled to respond in a certain manner when their school district was being studied or when their administrator requests their participation in this survey (McCambridge et al., 2014). To safeguard against this external threat to validity, anonymity minimized the observer effect. The researcher also explained the primary purpose of the study, its focus on providing information for educational research, and that their survey responses in no way evaluate their administrators or school district practices.

Summary

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. To gain insight into these factors, the investigator conducted a study utilizing a mixed-methods research approach using an online survey tool. As only teachers were be invited to participate in the survey, purposive sampling was utilized. Descriptive tables for each question of the survey were created. The tables highlighted descriptive statistical trends gathered from the quantitative portion of the study as well as lists of common beliefs gained from the thematic analysis process. Potential relationships between perceptions of safety and school facilities, gender, years of experience, and teaching assignment were emphasized. Detailed survey results and findings are highlighted in Chapter four.

Chapter Four

Findings

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. The study was an extension of the research methodology used in Leonard's (2016) study entitled *What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?* The study identified factors that influence teacher perceptions of safety. The study explored connections between four areas of a teacher's experiences with their perceptions of safety. The four areas were physical characteristics of schools, relationships with colleagues, school administration practices, and the principals' adherence to division safety policies. The four research sub-questions were:

(1) What physical characteristics of school facilities contribute to perceptions of safety for teachers?
(2) How do relationships with colleagues within the school environment influence perceptions of teacher safety?
(3) How do the practices of school administrators influence perceptions of safety for teachers? and
(4) How does a principal's adherence to division safety policies influence teachers' perceptions of safety?

Survey Procedures and Data Collection

Data collection for this study began in May 2021 for a two-week period. The electronic survey was administered through the Virginia Tech Qualtrics data collection system. Emails containing the link to the survey were sent to all teachers in the division. Two reminder emails were sent after the initial email to all teachers. Completed survey data were exported from

Qualtrics to a Microsoft Excel sheet for analysis. The researcher's computer was protected by two-factor authentication, and the data were downloaded and saved daily. Further, the data were backed up daily to an external hard drive.

The electronic survey was sent to all teachers in the division. Of those teachers, 353 completed or partially completed the survey. The survey yielded a 94.61% completion rate. The Qualtrics program collected and stored data from all completed items of the survey. Participants could only complete the survey one time.

The first three questions from the survey provide teacher characteristics that were used for comparison purposes. Participants were given the option to skip these three questions if they are concerned about survey anonymity. The three characteristics included years of experience, gender, and school level. Of the participants who chose to complete the question regarding years of experience, 112 had 0-5 years of experience, 70 had 6-10 years of experience, 50 had 11-15 years of experience, 45 had 16-20 years of experience, 36 had 21-25 years of experience, 17 had 17-30 years of experience, and nine had more than 30 years of experience. Of the participants who chose to answer the gender question, 67 identified as male, 271 identified as female, and three identified as non-binary. Of the participants who chose to answer the question regarding school level, 127 indicated that they worked in an elementary school, and 223 indicated that they worked in a secondary school. For a summary of these characteristics, see Table 9 and Table 10.

Table 9

Participants Distribution by Gender and Teaching Assignment

Gender			Teaching Assignment	
Male	Female	Non-Binary	Elementary	Secondary
67	271	3	127	223

Table 10

Participants Distribution by Years of Experience

Years of Experience						
0-5	6-10	11-15	16-20	21-25	26-30	Over 30
112	70	50	45	36	17	9

The researcher used a weighted average to compare responses to the Likert scale survey questions among participants identifying characteristics. Given the wide deviation present in participants' gender, years of experience, and school level, a weighted average maximizes the relative importance of each response and minimizes the impacts of small representative participant groups. Thus, a weighted average provides more accurate descriptive data representative of the whole sample population. The weighted average accounts for the relative importance of each number in the sample for uneven data and smooths fluctuations and makes all values in the sample equivalent (Grela, 2013).

To calculate the weighted average, the researcher determined the sum of percent responses for each Likert scale response multiplied by the number of participants in each characteristic group divided by the number of all participants. For each research question, the researcher used three weighted averages; the first describing strongly disagree and disagree responses; the second describing uncertain responses; the third describing agree and strongly agree with responses. This calculation was repeated for gender, years of experience, and teaching assignment.

Lastly, as indicated in Table 9, 3 survey participants identified as non-binary. Since the survey results were shared with district leadership and school administration and due to the small number of non-binary staff represented, non-binary staff participants were excluded from the overall gender demographic representations in each table; however, their responses were

included within the overall survey results. The exclusion of non-binary participants from survey demographics was to ensure their autonomy and the confidentiality of their responses as their low numbers within school buildings could easily identify them.

Factors that Influence Teachers' Perceptions of Safety in Their Classrooms and Schools

The main research question for this study was *What School factors influence teachers' perception of safety in their classrooms and schools?* Items 4, 5, 6, and 7 from the survey corresponded to the main research question. These four items were designed to gather general data on teachers' perception of safety in their classrooms. Later survey items sought more specific trends from the study's four sub-research questions.

Feeling Safe at School

Item 4 from the survey addressed teachers feeling safe at school. Overall, the study revealed that 92.49% of survey participants felt safe at school. Regarding gender, 93.43% of male, female, and non-binary individuals reported that they agreed or strongly agreed that they felt safe at school. Male participants (97.02%) felt safer at school than female participants (92.83%). Considering school level, 92.73% of individuals felt safe at school. Elementary teachers (96.00%) felt safer than secondary teachers (90.87%). When examining responses based on years of experience, 92.63% of survey participants reported that they felt safe at school. For a summary of responses for survey Item 4, refer to Table 11. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, felt safe at school.

Table 11

Item 4. I Feel Safe at School.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	1.73%	1.73%	4.05%	52.89%	39.60%
Gender					
Male	0.00%	1.49%	1.49%	50.75%	46.27%
Female	1.51%	1.89%	3.77%	53.58%	39.25%
School Level					
Elementary	2.40%	0.00%	1.60%	51.20%	44.80%
Secondary	0.91%	2.74%	5.48%	53.88%	36.99%
Years of Experience					
0-5	1.79%	1.79%	6.25%	42.86%	47.32%
6-10	0.00%	1.43%	2.86%	64.29%	31.43%
11-15	2.00%	2.00%	0.00%	60.00%	36.00%
16-20	4.44%	2.22%	4.44%	48.89%	40.00%
21-25	0.00%	2.78%	5.56%	63.89%	27.78%
26-30	0.00%	0.00%	5.88%	47.06%	47.06%
>30	0.00%	0.00%	0.00%	33.33%	66.67%

Concern about Outside Intruders Coming into my School and Committing Acts of Violence

Item 5 from the survey addressed the concern from teachers about outside intruders entering the school to commit acts of violence. The responses from Item 5 varied, yet were consistent across all three reporting groups. Overall, the study indicated that 60.69% of survey participants were not concerned about outside intruders coming into their school to commit acts of violence. Regarding gender, 61.79% of male, female, and non-binary individuals reported that they disagreed or strongly disagreed and had no concerns with outside intruders. However, 14.63% were uncertain, and 23.58% agreed or strongly agreed and were concerned. Male participants (73.13%) were less concerned with outside intruders than female participants (59.24%). Considering school level, 60.47% of respondents disagreed or strongly disagreed and had no concerns with outside intruders. However, 14.83% were uncertain, and 24.71% agreed or strongly agreed and were concerned. Elementary participants (63.20%) were less concerned

with outside intruders than secondary participants (58.90%). When examining responses based on years of experience, 62.36% of teachers disagreed or strongly disagreed and had no concerns with outside intruders. Yet 14.04% were uncertain, and 23.60% agreed or strongly agreed and were concerned. For a summary of responses for survey Item 5, refer to Table 12. As confirmed in the table, at least 60% of survey participants overall, as well as across all three demographic categories, were not concerned about outside intruders coming into their school to commit acts of violence.

Table 12

Item 5. I am concerned about outside intruders coming into my school and committing acts of violence.

	Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
Overall	19.36%	41.33%	14.74%	20.23%	4.34%
Gender					
Male	23.88%	49.25%	8.96%	17.91%	0.00%
Female	19.62%	39.62%	16.23%	20.00%	4.53%
School Level					
Elementary	21.60%	41.60%	16.00%	15.20%	5.60%
Secondary	18.26%	40.64%	14.16%	23.29%	3.65%
Years of Experience					
0-5	26.79%	33.93%	14.29%	16.96%	8.04%
6-10	17.14%	44.29%	12.86%	21.43%	4.29%
11-15	16.00%	56.00%	10.00%	16.00%	2.00%
16-20	8.89%	44.44%	17.78%	24.44%	4.44%
21-25	13.21%	47.17%	16.98%	22.64%	0.00%
26-30	11.76%	52.94%	11.76%	23.53%	0.00%
>30	44.44%	44.44%	11.11%	0.00%	0.00%

Concern for Safety Due to Student Behavior

Item 6 from the survey addressed the concern from teachers about their safety related to student behavior. The responses from Item 6 varied, yet were consistent across all three reporting groups. Overall, the study indicated that 70.52% of survey participants were not

concerned about their safety related to student behavior. Regarding gender, 71.64% of male, female, and non-binary individuals reported that they disagreed or strongly disagreed and were not concerned with their safety due to student behavior. However, 11.04% were uncertain, and 17.73% agreed or strongly agreed and showed concern. Male participants (83.59%) were less concerned for their safety due to student behavior than female participants (69.43%). Considering school level, 70.93% of respondents disagreed or strongly disagreed and were not concerned with their safety due to student behavior. Furthermore, 11.34% were uncertain, and 17.73% agreed or strongly agreed and were concerned. Elementary participants (74.40%) were less concerned for their safety due to student behavior than secondary participants (68.95%). When examining responses based on years of experience, 70.80% of teachers disagreed or strongly disagreed and were not concerned with their safety due to student behavior. Yet, 11.50% were uncertain, and 17.70% agreed or strongly agreed and showed concern. For a summary of responses for survey Item 6, refer to Table 13. As confirmed in the table, at least 70% of survey participants overall, as well as across all three demographic categories, were not concerned for their safety due to student behavior.

Table 13

Item 6. I am concerned for my safety due to student behavior.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	20.23%	50.29%	11.56%	15.90%	2.02%
Gender					
Male	32.84%	50.75%	2.99%	13.43%	0.00%
Female	18.11%	51.32%	12.45%	16.23%	1.89%
School Level					
Elementary	23.20%	51.20%	11.20%	12.80%	1.60%
Secondary	18.72%	50.23%	11.42%	17.35%	2.28%
Years of Experience					
0-5	22.32%	50.89%	13.39%	9.82%	3.57%
6-10	20.00%	52.86%	11.43%	14.29%	1.43%
11-15	20.00%	46.00%	12.00%	22.00%	0.00%
16-20	24.44%	46.67%	6.67%	17.78%	4.44%
21-25	13.89%	52.78%	13.89%	19.44%	0.00%
26-30	5.88%	58.82%	5.88%	29.41%	0.00%
>30	44.44%	33.33%	11.11%	11.11%	0.00%

Teacher Perception of Safety Over Time

Item 7 from the survey addressed teacher perceptions of safety over time. This item had the most uniform distribution of participant responses that agreed, disagreed, or was uncertain about their perceptions of school safety compared to ten years ago. Overall, 36.13% of survey participants agreed, 38.73% disagreed, and 25.14% were uncertain. Regarding gender, 37.91% of male, female, and non-binary individuals reported that they disagreed or strongly disagreed; thus, their perception of safety over time changed. However, 25.37% were uncertain, and 36.72% agreed or strongly agreed that they felt as safe now as they did 10 years ago. Considering school level, 38.66% of respondents disagreed or strongly disagreed; thus, their perception of safety over time changed. However, 25.29% were uncertain, and 36.05% agreed or strongly agreed that they felt as safe now as they did 10 years ago. When examining responses based on years of experience, 38.60% of teachers disagreed or strongly disagreed;

thus, their perception of safety over time changed. However, 25.44% were uncertain, and 35.96% agreed or strongly agreed that they felt as safe now as they did 10 years ago. For a summary of responses for survey Item 7, refer to Table 14. As confirmed in the table, survey participants who answered Item 7 had the most uniform distribution of participant responses that agreed, disagreed, or was uncertain about their perceptions of school safety compared to ten years ago. Overall, 36.13% of survey participants agreed, 38.73% disagreed, and 25.14% were uncertain.

Table 14

Item 7. I feel as safe now as a teacher as I felt, or would have felt, ten years ago as a teacher.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	6.94%	31.79%	25.14%	26.30%	9.83%
Gender					
Male	2.99%	26.87%	29.85%	28.36%	11.94%
Female	7.17%	32.83%	23.77%	26.42%	9.81%
School Level					
Elementary	5.60%	38.40%	21.60%	23.20%	11.20%
Secondary	7.31%	28.31%	27.40%	27.85%	9.13%
Years of Experience					
0-5	22.32%	50.89%	13.39%	9.82%	3.57%
6-10	20.00%	52.86%	11.43%	14.29%	1.43%
11-15	20.00%	46.00%	12.00%	22.00%	0.00%
16-20	24.44%	46.67%	6.67%	17.78%	4.44%
21-25	13.89%	52.78%	13.89%	19.44%	0.00%
26-30	5.88%	58.82%	5.88%	29.41%	0.00%
>30	44.44%	33.33%	11.11%	11.11%	0.00%

Physical Characteristics of School Facilities that Contribute to Feelings of Safety for Teachers

The first secondary research question for this study was *What physical characteristics of school facilities contribute to feelings of safety for teachers?* This section of the survey focused on physical characteristics that teachers could see and how they impacted their perceptions of

safety. Items 8, 9, 10, 11, 12, and 13 addressed this question. Survey Items 8, 9, 10, 11, and 12 were quantitative questions; however, survey Item 13 was qualitative.

Locked Exterior Doors

Item 8 from the survey focused on locked exterior doors and their impact on teacher perceptions of safety. Overall, the study indicated that 93.84% of survey participants believed that locked exterior doors impacted their perceptions of safety in a positive manner. Regarding gender, 93.94% of male, female, and non-binary individuals reported that they agreed or strongly agreed that locked exterior doors made them feel safe at school. Female participants (94.23%) perceived that locked exterior doors attributed to their safety more than male participants (92.54%). Considering school level, 94.38% of individuals reported that they agreed or strongly agreed that locked exterior doors made them feel safe at school. Elementary participants (96.72%) perceived that locked exterior doors attributed to their safety more than secondary participants (93.05%). When examining responses based on years of experience, 94.01% of survey participants reported that they agreed or strongly agreed that locked exterior doors made them feel safe at school. For a summary of responses for survey Item 8 refer to Table 15. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, perceived that locked exterior doors positively impacted their perceptions of safety at school.

Table 15

Item 8. Locked exterior doors make me feel safe at school.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	1.17%	2.35%	2.64%	50.44%	43.40%
Gender					
Male	2.99%	0.00%	4.48%	52.24%	40.30%
Female	0.77%	2.69%	2.31%	48.85%	45.38%
School Level					
Elementary	0.00%	1.64%	1.64%	45.08%	51.64%
Secondary	1.39%	3.24%	2.31%	53.70%	39.35%
Years of Experience					
0-5	1.80%	0.90%	2.70%	44.14%	50.45%
6-10	1.52%	1.52%	1.52%	60.61%	34.85%
11-15	0.00%	2.00%	6.00%	50.00%	42.00%
16-20	0.00%	4.44%	2.22%	53.33%	40.00%
21-25	2.78%	2.78%	2.78%	58.33%	33.33%
26-30	0.00%	0.00%	0.00%	47.06%	52.94%
>30	0.00%	11.11%	0.00%	22.22%	66.67%

Locked Doors Between the Main Office of the School and the Remainder of the School

Item 9 from the survey addressed how locked doors between the main office and the remainder of the school impacted teacher perceptions of safety. Overall, the study indicated that 82.70% of survey participants believed that locked doors between the main office and the remainder of the school impacted their safety. Regarding gender, 82.42% of male, female, and non-binary individuals reported that they agreed or strongly agreed that these locked doors kept them safe. However, 10.00% were uncertain, and 7.58% disagreed or strongly disagreed that locked doors between the main office and the remainder of the school kept them safe. Male participants (85.07%) perceived that locked doors between the main office and the remainder of the school attributed to their safety more than female participants (81.92%). Considering school level, 82.60% of respondents agreed or strongly agreed that locked doors in these areas kept them safe. The data showed that 10.03% were uncertain, and 7.37% disagreed or strongly

disagreed with this viewpoint. Elementary participants (84.56%) perceived that locked doors between the main office and the remainder of the school attributed to their safety more than secondary participants (81.48%). When examining responses based on years of experience, 82.63% of teachers agreed or strongly agreed that locked doors kept them safe, 9.88% were uncertain, and 7.49% disagreed or strongly disagreed with this perception. For a summary of responses for survey Item 9, refer to Table 16. As confirmed in the table, at least 82% of survey participants overall, as well as across all three demographic categories, perceived that locked doors between the main office of the school and the remainder of the school that prevents visitors from accessing the classrooms positively impacted their perceptions of safety.

Table 16

Item 9. Locked doors between the main office of the school and the remainder of the school that prevents visitors from accessing the classrooms make me feel safe.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	2.05%	5.28%	9.97%	48.68%	34.02%
Gender					
Male	2.99%	1.49%	10.45%	53.73%	31.34%
Female	1.92%	6.54%	9.62%	46.54%	35.38%
School Level					
Elementary	1.63%	4.07%	9.76%	47.97%	36.59%
Secondary	2.31%	6.02%	10.19%	49.07%	32.41%
Years of Experience					
0-5	1.80%	3.60%	8.11%	45.05%	41.44%
6-10	0.00%	4.55%	4.55%	53.03%	37.88%
11-15	4.00%	4.00%	16.00%	44.00%	32.00%
16-20	0.00%	11.11%	13.33%	55.56%	20.00%
21-25	8.33%	8.33%	8.33%	50.00%	25.00%
26-30	0.00%	0.00%	23.53%	41.18%	35.29%
>30	0.00%	11.11%	0.00%	44.44%	44.44%

Security Cameras

Item 10 from the survey addressed how security cameras in schools impacted teacher perceptions of safety. Overall, the study indicated that 86.21% of survey participants believed

that security cameras in schools kept them safe. Regarding gender, 86.67% of male, female, and non-binary individuals reported that they agreed or strongly agreed that cameras impacted their safety at school. However, 6.36% were uncertain, and 6.97% disagreed or strongly disagreed that security cameras in schools kept them safe. Female participants (88.46%) perceived that the presence of security cameras attributed more to their positive perceptions of safety than male participants (80.60%). Considering school level, 86.35% of respondents agreed or strongly agreed that security cameras in schools kept them safe. Furthermore, 6.82% were uncertain, and 6.82% disagreed or strongly disagreed that security cameras kept them safe. Elementary participants (89.26%) perceived that the presence of security cameras attributed more to their positive perceptions of safety than secondary participants (84.73%). When examining responses based on years of experience, 87.09% of teachers agreed or strongly agreed that security cameras kept them safe, 6.01% were uncertain, and 6.91% disagreed or strongly disagreed. For a summary of responses for survey Item 10, refer to Table 17. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, perceived that security cameras on the interior and exterior of a school positively impacted their perceptions of safety at school.

Table 17

Item 10. Security cameras on the interior and exterior of a school make me feel safe at school.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	0.88%	6.16%	6.74%	52.49%	33.72%
Gender					
Male	2.99%	5.97%	10.45%	50.75%	29.85%
Female	0.38%	5.77%	5.38%	53.08%	35.38%
School Level					
Elementary	0.83%	4.13%	5.79%	54.55%	34.71%
Secondary	0.93%	6.94%	7.41%	50.93%	33.80%
Years of Experience					
0-5	1.82%	5.45%	3.64%	46.36%	42.73%
6-10	0.00%	1.52%	3.03%	57.58%	37.88%
11-15	0.00%	6.00%	8.00%	60.00%	26.00%
16-20	0.00%	6.67%	13.33%	60.00%	20.00%
21-25	2.78%	16.67%	2.78%	50.00%	27.78%
26-30	0.00%	5.88%	11.76%	47.06%	35.29%
>30	0.00%	0.00%	11.11%	44.44%	44.44%

Classrooms inside the Main Building

Item 11 from the survey addressed how having a classroom inside the main school building impacted teacher perceptions of safety. Overall, the study indicated that 86.22% of survey participants believed that having a classroom inside the school building impacted their safety. Regarding gender, 86.36% of male, female, and non-binary individuals reported that they agreed or strongly agreed that having a classroom in the building impacted their safety. However, 8.48% were uncertain, and 5.15% disagreed or strongly disagreed that a classroom in the building kept them safe. Male participants (89.55%) perceived that having a classroom located inside the main school building attributed to their safety more than female participants (85.77%). Considering school level, 86.43% of respondents agreed or strongly agreed that having a classroom inside the building kept them safe. Furthermore, 8.55% were uncertain, and 5.01% disagreed or strongly disagreed that classrooms inside the building kept them safe.

Elementary participants (87.00%) perceived that having a classroom located inside the main school building attributed to their safety more than secondary participants (86.11%). When examining responses based on years, 86.23% of teachers agreed or strongly agreed with the argument that having a classroom inside the building kept them safe, 8.68% were uncertain, and 5.09% disagreed or strongly agreed with this argument. For a summary of responses for survey Item 11, refer to Table 18. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, perceived that having a classroom located inside the main school building positively impacted their perceptions of safety.

Table 18

Item 11. Having a classroom located inside the main school building makes me feel safe.

	Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
Overall	1.17%	3.81%	8.80%	50.44%	35.78%
Gender					
Male	2.99%	0.00%	7.46%	55.22%	34.33%
Female	0.77%	5.00%	8.46%	49.23%	36.54%
School Level					
Elementary	1.63%	3.25%	8.13%	50.41%	36.59%
Secondary	0.93%	4.17%	8.80%	50.46%	35.65%
Years of Experience					
0-5	1.80%	1.80%	7.21%	45.95%	43.24%
6-10	0.00%	1.52%	7.58%	51.52%	39.39%
11-15	0.00%	6.00%	10.00%	56.00%	28.00%
16-20	0.00%	11.11%	6.67%	55.56%	26.67%
21-25	5.56%	5.56%	13.89%	55.56%	19.44%
26-30	0.00%	0.00%	11.76%	47.06%	41.18%
>30	0.00%	0.00%	11.11%	11.11%	77.78%

Resource Officers

Item 12 from the survey addressed how having a School Resource Officer in the school building impacted teacher perceptions of safety. Overall, the researcher determined that 81.82% of survey participants believed that having an SRO in the school building positively impacted

their safety. Regarding gender, 81.36% of male, female, and non-binary individuals reported that they agreed or strongly agreed that an SRO in schools made them feel safer. However, 9.70% were uncertain, and 8.48% disagreed or strongly disagreed that an SRO impacted the safety of a school in a positive manner. Female participants (82.70%) perceived that having an SRO in their school building attributed to their safety more than male participants (80.60%). Considering school level, 81.71% of respondents agreed or strongly agreed, 10.03% were uncertain, and 8.26% disagreed or strongly disagreed that an SRO in schools made them feel safer. Secondary participants (83.33%) perceived that having an SRO in their school building attributed to their safety more than elementary participants (78.86%). When examining responses based on years of experience, 81.82% of teachers agreed or strongly agreed with the argument that having an SRO classroom inside the building kept them safe, 10.30% were uncertain, and 7.88% disagreed or strongly. For a summary of responses for survey Item 12, refer to Table 19. As confirmed in the table, at least 81% of survey participants overall, as well as across all three demographic categories, indicated that having a resource officer in their school positively impacted their perceptions of safety.

Table 19

Item 12. It is important to my feelings of safety to have a resource officer in my school building.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	2.93%	5.28%	9.97%	35.19%	46.63%
Gender					
Male	4.48%	4.48%	10.45%	41.79%	38.81%
Female	2.31%	5.38%	9.62%	33.85%	48.85%
School Level					
Elementary	3.25%	4.88%	13.01%	33.33%	45.53%
Secondary	2.78%	5.56%	8.33%	36.11%	47.22%
Years of Experience					
0-5	6.31%	5.41%	10.81%	32.43%	45.05%
6-10	1.52%	0.00%	10.61%	40.91%	46.97%
11-15	2.00%	12.00%	12.00%	34.00%	40.00%
16-20	0.00%	2.44%	2.44%	46.34%	48.78%
21-25	0.00%	2.78%	2.78%	36.11%	58.33%
26-30	0.00%	0.00%	35.29%	23.53%	41.18%
>30	11.11%	22.22%	11.11%	33.33%	22.22%

Facility Characteristics that Influence Teacher Perceptions of Safety

Item 13 was the first qualitative question in the study. The question asked participants to identify facility characteristics teachers perceived to be the most important in keeping them safe at work. Of the 353 participants that started the survey, 341 provided an answer to this question. Three key themes emerged upon the completion of the thematic analysis process. The foremost theme present was locked doors identified by 169 survey participants. The second prevalent theme was the presence of school resource officers (SRO) conveyed by 86 survey participants. The third theme was camera usage noted by 41 survey participants. For a summary of the themes and an overview of sample responses gathered from the survey, see Table 20. As in the table, survey participants indicated that the three most important school and classroom facility characteristics in making them feel safe as a teacher were locked doors, school resource officers, and cameras.

Table 20

Item 13: What do you feel are the most important school and classroom facility characteristics in making you feel safe as a teacher?

Themes	Responses
Locked Doors (169)	• "Locked exterior doors that need badge access to enter…" (R 19) • "Having a locked classroom door is very important in helping me feel safe at school." (R 33) • "locked exterior doors, having to enter the office to enter the building, printed name tags with pictures from the main office" (R 44) • " Locked exterior doors and the ability to lock our individual classrooms." (R 59) • "I think locked classroom doors are the best feature because it ensures that the person coming in to the room is seen by the teacher." (R65) • "Locked outside doors and needing to be allowed into the front office by staff..." (R 106) • "Having doors that actually lock on the classroom…" (R 131) • "The locked entrance between the main office and the rest of the school. Working locks on the classroom doors." (R 158) • "Locked doors with limited access to outsiders" (R 194) • "That exterior doors to the building are locked at all times…" (206) • "The ability to lock doors/windows." (292)
School Resource Officers (SRO) (86)	• "I feel safer having a resource officer and/or security officer at school." (R 3) • "It is also essential to have an SRO but they need to feel comfortable with being an authority figure and not just a "figure." (R 6) • "Having a School Resource Officer on campus or in the school building." (28) • "Having a resource officer and security person present in the building everyday and seeing them walk around and checking exterior doors throughout the day." (R 48) • "I think it's important to have an SRO in the building…" (R 72) • "SRO officer and security guard carrying a firearm." (R 120) • "SRO!!!!!!!" (R 286)
Cameras (41)	• "cameras" (R 21) • "Blinds and Blackout Curtains, interior and exterior Cameras…(R 37) • "Personally, having cameras is probably what makes me feel

	safest." (R 82) • "Functional cameras covering all angles of building for increased security." (R 105) • "utilizing video cameras which give the school time to take needed steps during a possible situation" (R 136) • "Cameras, the PA system, and phones" (R 296)

Influence of Colleague Relationships on Teacher Perceptions of Safety

The second supporting research question was *How do relationships with colleagues within the school environment influence perceptions of teacher safety?* This section of the survey focused on how teachers' relationships and support from their colleagues during critical incidents influence their perceptions of safety. Survey Items 14, 15, and 16 addressed this secondary research question. Both Items 14 and 15 were quantitative and survey Item 16 was qualitative.

Colleague Support and Perceptions of Safety

Item 14 from the survey addressed how colleague relationships impacted perceptions of safety in school. Overall, the study indicated that 95.28% of survey participants agreed or strongly agreed that relationships with colleagues influenced perceptions of safety. Regarding gender, 95.12% of male, female, and non-binary individuals reported that they agreed or strongly agreed that they felt safe at school when they worked with colleagues who supported them. Female participants (95.35%) perceived that working in a school with colleagues who support them attributed more to their perceptions of safety than male participants (94.03%). Considering school level, 95.25% of individuals felt safe at school when they worked with colleagues who supported them. Elementary participants (95.90%) perceived that working in a school with colleagues who support them attributed more to their perceptions of safety than secondary participants (94.88%). When examining responses based on years of experience, 95.48% of

survey participants reported that they felt safe at school when they worked with colleagues who supported them. For a summary of responses for survey Item 14, refer to Table 21. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated that their perceptions of safety at school were positively impacted by working in a school with colleagues who supported them.

Table 21

Item 14. I feel safe when I work in a school with colleagues who support me.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	0.29%	0.88%	3.54%	41.89%	53.39%
Gender					
Male	0.00%	1.49%	4.48%	41.79%	52.24%
Female	0.39%	0.78%	3.49%	41.47%	53.88%
School Level					
Elementary	0.82%	0.82%	2.46%	40.98%	54.92%
Secondary	0.00%	0.93%	4.19%	42.79%	52.09%
Years of Experience					
0-5	0.91%	0.00%	3.64%	40.00%	55.45%
6-10	0.00%	0.00%	3.03%	33.33%	63.64%
11-15	0.00%	0.00%	2.00%	46.00%	52.00%
16-20	0.00%	2.22%	4.44%	51.11%	42.22%
21-25	0.00%	2.86%	5.71%	45.71%	45.71%
26-30	0.00%	0.00%	0.00%	47.06%	52.94%
>30	0.00%	11.11%	0.00%	33.33%	55.56%

Critical Student Incidents and Colleague Support

Item 15 from the survey addressed the confidence levels of teachers in their colleagues coming to their support during a critical student incident. Overall, the study indicated that 87.31% of survey participants were confident that their colleagues would come to their aid during a critical student incident. Regarding gender, 87.20% of male, female, and non-binary individuals reported that they agreed or strongly agreed that a colleague would come to their aid during a critical student incident. However, 9.45% were uncertain, and 3.35% disagreed or

strongly disagreed that a colleague would come to their aid. Female participants (88.76%) believed that colleague support during a critical incident attributed more to their perceptions of safety than male participants (80.59%). Considering school level, 87.24% of respondents agreed or strongly agreed that a colleague would come to their aid, 9.50% were uncertain, and 3.26% disagreed or strongly disagreed. Elementary participants (90.16%) believed that colleague support during a critical incident attributed more to their perceptions of safety than secondary participants (85.59%). When examining responses based on years of experience, 87.05% of teachers agreed or strongly agreed that a colleague would come to their aid, 9.64% were uncertain, and 3.31% disagreed or strongly disagreed. For a summary of responses for survey Item 15, refer to Table 22. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated colleagues come to their aid during a critical student incident.

Table 22

Item 15. My colleagues come to my aid during a critical student incident.

	Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
Overall	0.88%	2.36%	9.44%	45.13%	42.18%
Gender					
Male	1.49%	5.97%	11.94%	49.25%	31.34%
Female	0.78%	1.55%	8.91%	44.96%	43.80%
School Level					
Elementary	0.82%	2.46%	6.56%	50.00%	40.16%
Secondary	0.93%	2.33%	11.16%	42.33%	43.26%
Years of Experience					
0-5	0.91%	0.00%	10.91%	41.82%	46.36%
6-10	0.00%	4.55%	4.55%	45.45%	45.45%
11-15	0.00%	2.00%	12.00%	50.00%	36.00%
16-20	2.22%	4.44%	15.56%	44.44%	33.33%
21-25	2.86%	2.86%	5.71%	48.57%	40.00%
26-30	0.00%	0.00%	5.88%	52.94%	41.18%
>30	0.00%	11.11%	11.11%	33.33%	44.44%

Colleague Relationship Influence on Teacher Perceptions of Safety

Item 16 was the second qualitative question in the study. The question asked participants how their relationships with their colleagues influenced their perceptions of safety at work. Of the 353 participants that started the survey, 339 provided an answer to this question. Three key themes emerged upon the completion of the thematic analysis process. The foremost theme present was support identified by 77 survey participants. The second prevalent theme was trust conveyed by 40 survey participants. The third theme was the concept of having your colleague's back as noted by 31 survey participants. For a summary of the themes and an overview of sample responses gathered from the survey for Item 16, see Table 23. As confirmed in the table, survey participants indicated that the three most common ways colleague relationships impact perceptions of safety were support, trust, and the concept of having your back.

Table 23

Item 16: How do colleague relationships influence your feelings of safety as a teacher?

Themes	Responses
Support (77)	• "I think that teachers feel safer at school when they feel supported at school by their colleagues." (R 3) • "good team makes me feel safer, teams with less unity make me feel less supported/safe" (R 14) • "Supportive colleagues make me safe. I try to surround myself around colleagues that are supportive rather than ones that are not." (R 35) • "This is huge for teachers and admin to be supportive." (R 53) • "They greatly influence how I feel. Feeling more supported, especially by admin is huge in how I feel on a day to day basis. If I did not have that support I would not work with the special education population that I have." (R 102) • "I love to feel as though I have support if I need it." (R 115) • "I need to feel supported by my colleagues." (R 143) • "Knowing that you are supported and looked after adds feelings of safety" (R 175) • "The more awareness and support, the better…" (R 215) • "Colleagues that support each other help each feel successful in all areas. Including safety" (R 243)

Trust (40)	• "teachers must feel like they can trust each other if they need to step in and help prevent a dangerous situation" (R 13) • "If I feel like I can trust my colleagues, I feel like they would be willing to help me feel safe. If I don't like my colleagues, I don't feel like they may try to protect me, if need be." (R 70 • "Having trust in my colleagues that they would come to m" (R 85) • "Trusting my colleagues puts me at ease in the building. If I did not feel supported I would feel more on edge during the day." (R 106) • "Being able to trust and rely on who you work with is key to feeling safe." (R 131) • "When you can trust those around you to be proactive and reactive in your safety, it helps to boost feelings of security." (R 150) • "With positive relationships, including trusting the colleagues, I feel safer than those who lack trust." (R 174)
Having your back (31)	• "It's always good to know when someone has your back. Typically teams know when their is a problem student and will come to help if necessary- even if it's to remove other students." (R 9) • "It is nice to know that colleagues have your back" (R 19) • "I know that they have my back if something were to ever happen." (R 28) • "Having each others back is very important to my feelings." (R 67) • "I know that my colleagues would have my back if my safety was somehow compromise." (R 83) • "Many of my colleagues are my friends, so I know they have my back. I have a good working relationship with the others, and I know we all look out for each other." (R 110) • "I know someone has my back if ever needed." (R 178)

Influence of Practices of School Administrators on Teacher Perceptions of Safety

The third supporting research question of this study was *How do the practices of school administrators influence perceptions of safety for teachers?* This section of the survey focused on principal visibility, visitor policies, administrative practices, principal support, and advice teachers would give to a new principal. Survey Items 17, 18, 19, 20, and 21 addressed this secondary research question. Items 17, 18, 19, and 20 were quantitative, whereas survey Item 21 was qualitative.

Visible School Administrators

Item 17 from the survey addressed the impact of having an administrator who was visible during the school day had on teacher perceptions of safety. Overall, the study indicated that 85.72% of survey participants believed that having an administrator who was visible during the day impacted their perceptions of safety. Regarding gender, 85.54% of male, female, and non-binary individuals reported that they agreed or strongly agreed that visible administrators impacted their sense of safety. However, 8.00% were uncertain, and 6.46% disagreed or strongly disagreed that visible administrators impacted safety in schools. Female participants (88.63%) perceived that having a visible administrator attributed to their safety more than male participants (73.14%). Considering school level, 85.63% of respondents agreed or strongly agreed that visible administrators mattered, 8.08% were uncertain, and 6.29% disagreed or strongly disagreed. Elementary participants (85.83%) perceived that having a visible administrator attributed to their safety slightly more than male participants (85.52%). When examining responses based on years of experience, 86.32% of teachers agreed or strongly agreed that visible administrators impacted safety, 7.29% were uncertain, and 6.38% disagreed or strongly disagreed. For a summary of responses for survey Item 17, refer to Table 24. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated that having an administrator who is visible during the school day positively impacted their perceptions of safety.

Table 24

Item 17. Having an administrator who is visible during the school day makes me feel safe at School.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	1.49%	4.76%	8.04%	44.05%	41.67%
Gender					
Male	2.99%	5.97%	17.91%	44.78%	28.36%
Female	1.18%	4.71%	5.49%	43.53%	45.10%
School Level					
Elementary	1.67%	5.00%	7.50%	45.00%	40.83%
Secondary	1.40%	4.67%	8.41%	43.93%	41.59%
Years of Experience					
0-5	1.82%	2.73%	10.91%	41.82%	42.73%
6-10	0.00%	6.15%	12.31%	40.00%	41.54%
11-15	0.00%	4.08%	4.08%	44.90%	46.94%
16-20	0.00%	8.89%	2.22%	51.11%	37.78%
21-25	5.71%	5.71%	2.86%	45.71%	40.00%
26-30	0.00%	0.00%	0.00%	75.00%	25.00%
>30	11.11%	11.11%	0.00%	22.22%	55.56%

Adherence to Visitor Policies

Item 18 from the survey addressed how adherence to visitor policies by administration impacted perceptions of safety in school. Overall, the study determined that 95.24% of survey participants agreed or strongly agreed that adherence to visitor policy by administration influenced perceptions of safety. Regarding gender, 95.08% of male, female, and non-binary individuals reported that they agreed or strongly agreed that adherence to visitor policies by administrators contributed to positive perceptions of safety at school. Male participants (95.53%) perceived that administrators' adherence to visitor policies attributed to their safety slightly more than female participants (95.29%). Considering the school level, 95.21% of individuals agreed that adherence to visitor policies by administrators contributed to positive perceptions of safety at school. Elementary participants (95.53%) perceived that administrators' adherence to visitor policies attributed to their safety more than secondary participants (94.40%).

When examining responses based on years of experience, 95.43% of survey participants reported that adherence to visitor policies by administrators contributed to positive perceptions of safety at school. For a summary of responses for survey Item 18, refer to Table 25. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated that adherence to visitor policy by administration positively impacted their perceptions of safety at school.

Table 25

Item 18. Adherence to visitor policy by administration makes me feel safe at school.

	Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
Overall	0.89%	1.19%	2.68%	34.82%	60.42%
Gender					
Male	2.99%	0.00%	1.49%	44.78%	50.75%
Female	0.39%	1.57%	2.75%	31.76%	63.53%
School Level					
Elementary	0.83%	0.00%	2.50%	35.00%	61.67%
Secondary	0.93%	1.87%	2.80%	35.05%	59.35%
Years of Experience					
0-5	1.82%	0.91%	3.64%	35.45%	58.18%
6-10	0.00%	0.00%	1.54%	35.38%	63.08%
11-15	0.00%	2.04%	0.00%	32.65%	65.31%
16-20	0.00%	2.22%	2.22%	37.78%	57.78%
21-25	2.94%	2.94%	2.94%	29.41%	61.76%
26-30	0.00%	0.00%	0.00%	31.25%	68.75%
>30	0.00%	0.00%	11.11%	33.33%	55.56%

Administrative Practices of the School Principal

Item 19 from the survey addressed how the administrative practices of the school principal impact teacher perceptions of safety. Overall, the study indicated that 90.18% of survey participants believed that the administrative practices in their schools impacted safety. Regarding gender, 90.46% of male, female, and non-binary individuals reported that they agreed or strongly agreed that principal practices contribute to teacher perceptions of safety. However,

5.54% were uncertain, and 4.00% disagreed or strongly disagreed that principal practices had any impact on perceptions of safety in school. Female participants (90.98%) perceived that administrative practices impacted their perceptions of safety more than male participants (89.55%). Considering school level, 90.12% of respondents agreed or strongly agreed that administrative practices impact perceptions of safety. Further, 5.99% were uncertain, and 3.89% disagreed or strongly disagreed that administrative practices impacted safety. Elementary participants (91.67%) perceived that administrative practices impacted their perceptions of safety more than secondary participants (89.25%). When examining responses based on years of experience, 89.97% of teachers agreed or strongly agreed that administrative practices impacted perceptions of safety, 6.08% were uncertain, and 3.95% disagreed or strongly disagreed. For a summary of responses for survey Item 19, refer to Table 26. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated that the administrative practices of their school principal were important to their perceptions of safety at school.

Table 26

Item 19. The administrative practices of my school principal are important to my feelings of safety.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	0.60%	3.27%	5.95%	42.86%	47.32%
Gender					
Male	0.00%	2.99%	7.46%	49.25%	40.30%
Female	0.78%	3.53%	4.71%	41.18%	49.80%
School Level					
Elementary	1.67%	1.67%	5.00%	42.50%	49.17%
Secondary	0.00%	4.21%	6.54%	42.99%	46.26%
Years of Experience					
0-5	0.91%	0.91%	9.09%	45.45%	43.64%
6-10	0.00%	1.54%	6.15%	41.54%	50.77%
11-15	0.00%	6.12%	4.08%	48.98%	40.82%
16-20	0.00%	6.67%	2.22%	42.22%	48.89%
21-25	0.00%	8.57%	5.71%	31.43%	54.29%
26-30	0.00%	0.00%	6.25%	43.75%	50.00%
>30	11.11%	0.00%	0.00%	22.22%	66.67%

Support from the Building Principal

Item 20 from the survey addressed how a supportive building principal impacts teacher perceptions of safety. The study indicated that 92.56% of survey participants believed that having a supportive principal positively impacted perceptions of safety at school. Regarding gender, 92.62% of male, female, and non-binary individuals reported that they agreed or strongly agreed that supportive building principals contribute to perceptions of safety at school. However, 4.62% were uncertain, and 2.77% disagreed or strongly disagreed that the support of principals had an impact on perceptions of safety. Female participants (93.33%) perceived that support from administration attributed to their perceptions of safety more than male participants (89.56%). Considering school level, 92.51% of respondents agreed or strongly agreed that the support of the principal impacted perceptions of safety, whereas 4.79% were uncertain, and 2.69% disagreed or strongly disagreed that a supportive principal had an impact on safety.

Elementary participants (95.00%) perceived that support from administration attributed to their perceptions of safety more than secondary participants (91.12%). When examining responses based on years of experience, 92.71% of teachers agreed or strongly agreed that a supportive principal had a positive impact on perceptions of safety, 4.56% were uncertain, and 2.74% disagreed or strongly disagreed. For a summary of responses for survey Item 20, refer to Table 27. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated that support from the principal positively impacted their perceptions of safety at school.

Table 27

Item 20. The support of a building principal makes me feel safe at school.

	Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
Overall	0.60%	2.08%	4.76%	39.29%	53.27%
Gender					
Male	1.49%	1.49%	7.46%	38.81%	50.75%
Female	0.39%	2.35%	3.92%	38.04%	55.29%
School Level					
Elementary	0.83%	1.67%	2.50%	35.83%	59.17%
Secondary	0.47%	2.34%	6.07%	41.12%	50.00%
Years of Experience					
0-5	0.91%	0.00%	6.36%	40.00%	52.73%
6-10	0.00%	1.54%	3.08%	38.46%	56.92%
11-15	0.00%	4.08%	4.08%	38.78%	53.06%
16-20	0.00%	2.22%	4.44%	42.22%	51.11%
21-25	2.86%	8.57%	2.86%	40.00%	45.71%
26-30	0.00%	0.00%	0.00%	43.75%	56.25%
>30	0.00%	0.00%	11.11%	22.22%	66.67%

Advice for New Principals Regarding Safety Issues

Item 21 was the third qualitative question in the study. The question asked participants to share what advice they would give new principals to increase teachers' perceptions of safety at school. Of the 353 participants that started the survey, 321 provided an answer to this question.

Three key themes emerged upon the completion of the thematic analysis process. The foremost theme present was visibility identified by 71 survey participants. The second prevalent theme was support conveyed by 44 survey participants. The third theme was communication as noted by 29 survey participants. For a summary of the themes and an overview of sample responses gathered from the survey for Item 16, see Table 28. As confirmed by the table, survey participants indicated that the three most common pieces of advice they would give to new principals to increase teachers' perceptions of safety in schools were to be visible, support teachers, and communicate effectively.

Table 28

Item 21. What advice would you give to new principals to increase teachers' perceptions of safety in schools?

Themes	Responses
Visibility (71)	• "Be visible. Be visible to your teachers and to your students..." (R 9) • "Be visible, accessible, and consistent." (R 20) • "Continue maintaining visible presence in all classrooms. develop clear and concise emergency action plans..." (R 40) • "Be as visible as possible!" (R 59) • "Be visible, be supportive, and show disciplinary action when needed" (R 96) • "Be visible to all students, get to know students personally and make sure they know you, show that you are human too and not just an authority figure…" (R 104) • "Making sure you are visible at least once a day. Walking around, asking how everyone is doing." (R 115) • "Be visible in the hallways and classrooms-management by walking around." (R 141) • "Be visible; listen to concerns; take all concerns seriously…" (R 176) • "Having VISIBLE people with power makes me feel safe. They don't hide out in their offices." (R 187) • "Be visible. Talk with the students and staff when you're visible. Be visible during class changes or times when large crowds gather (example: lunch). Visibility is everything." (R 230)
Support (44)	• "Teachers need to feel they can trust their colleagues, including administration. If admin does not support teachers, the lack of trust

	disables the feelings of safety." (R 15) • "Without my principal's support, I would not feel the way that I do at my building. That makes a world of difference." (R 25) • "Be supportive and strong" (R 50) • "Please support when it comes to student behavior. You have no idea how incredible it feels to have an administrator help and support you when handling difficult behavior." (R 75) • "It is important to check in on your teachers at various times and often so that they feel safe and supported." (R 107) • "Support, a friendly smile, and presence are three reassuring factors that help me feel safe. Being able to see my administration throughout the building is very comforting." (R 113) • "Support your teachers in terms of staying on top of potential issues" (R 252)
Communication (29)	• "Talk to your teachers. Keep an open line of communication of what you are doing to keep your staff safe. I know growing up in the generation of mass shootings it makes me feel safer knowing my admin addresses what happened and what we could do if the situation were to occur here." (R 7) • "Lead by example. Make sure everyone is clear on their responsibilities during safety drills. Have clear communication." (R 28) • "Communicate regularly." (R 68) • "Make protocols clear, maintain a physical presence throughout the building and keep the lines of communication open with staff." (R 92) • "Have open communication with teachers regarding their opinions and consider the input given!" (R 105)

Influence of a Principal's Adherence to Division Safety Policies on Perceptions of Safety

The last supporting research question for this study was *How does a principal's adherence to division safety policies influence teachers' perceptions of safety?* This section of the survey focused on teachers' knowledge of school division safety policies, school crisis plans, division-wide crisis plans, and whether or not existing policies pertaining to student discipline and crisis planning influenced perceptions of safety. Survey Items 22, 23, 24, and 25 addressed this secondary research question. Items 22, 23, and 24 were quantitative questions and survey Item 25 was qualitative.

Teacher Knowledge of School Division Safety Policies

Item 22 from the survey evaluated the teachers' knowledge of their school division safety policies. Overall, the study indicated that 85.63% of survey participants believed they had a strong knowledge of their school division's safety policies. Regarding gender, 85.45% of male, female, and non-binary individuals reported that they agreed or strongly agreed that they were knowledgeable about their school division policies. However, 11.15% were uncertain, and 3.41% disagreed or strongly disagreed they were knowledgeable about these policies. Male participants (86.57%) believed that their knowledge about school division safety policies impacted their perceptions of safety in school more positively than female participants (84.98%). Considering school level, 85.54% of respondents agreed or strongly agreed that they were knowledgeable about school division safety policies. Furthermore, 11.14% were uncertain, and 3.31% disagreed or strongly disagreed that they were knowledgeable. Elementary participants (89.07%) believed that their knowledge about school division safety policies impacted their perceptions of safety in school more positively than secondary participants (83.57%). When examining responses based on years of experience, 85.63% of teachers agreed or strongly agreed that they were knowledgeable about school division safety policies, 11.01% were uncertain, and 3.36% disagreed or strongly disagreed. For a summary of responses for survey Item 22, refer to Table 29. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated that they were knowledgeable about the school division's safety policies.

Table 29

Item 22. Are you knowledgeable about the school division's safety policies?

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	0.30%	2.99%	11.08%	61.08%	24.55%
Gender					
Male	0.00%	2.99%	10.45%	71.64%	14.93%
Female	0.40%	3.16%	11.46%	58.10%	26.88%
School Level					
Elementary	0.84%	0.84%	9.24%	62.18%	26.89%
Secondary	0.00%	4.23%	12.21%	61.03%	22.54%
Years of Experience					
0-5	0.91%	5.45%	15.45%	56.36%	21.82%
6-10	0.00%	0.00%	12.50%	65.63%	21.88%
11-15	0.00%	0.00%	4.08%	79.59%	16.33%
16-20	0.00%	2.22%	11.11%	53.33%	33.33%
21-25	0.00%	2.86%	5.71%	60.00%	31.43%
26-30	0.00%	12.50%	12.50%	56.25%	18.75%
>30	0.00%	0.00%	0.00%	50.00%	50.00%

School Crisis Plans

Item 23 from the survey addressed the impact of having a school crisis plan on teacher perceptions of safety. Overall, the study indicated that 88.02% of survey participants believed that having a school crisis plan positively impacted their perceptions of safety. Regarding gender, 88.54% of male, female, and non-binary individuals reported that they agreed or strongly agreed that having a school crisis plan positively impacted their perceptions of safety. However, 8.05% were uncertain, and 3.41% disagreed or strongly disagreed that the existence of a school crisis plan impacted their safety. Male participants (89.55%) perceived that having a school crisis plan attributed to their perceptions of safety more than female participants (88.53%). Considering school level, 85.54% of respondents agreed or strongly agreed that a school crisis plan positively impacts their perception of safety, whereas 11.14% were uncertain, and 3.31% disagreed or strongly disagreed that a school crisis plan kept them safe. Elementary participants (89.07%) perceived that having a school crisis plan attributed to their perceptions of safety more

than secondary participants (83.57%). When examining responses based on years of experience, 88.07% of teachers agreed or strongly agreed that the existence of a school crisis plan positively impacted that sense of safety, 8.56% were uncertain, and 3.36% disagreed or strongly disagreed. For a summary of responses for survey Item 23, refer to Table 30. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated that having a school crisis plan positively impacted their perceptions of safety at school.

Table 30

Item 23. Having a school crisis plan makes me feel safe at school.

	Strongly Disagree	**Disagree**	**Uncertain**	**Agree**	**Strongly Agree**
Overall	1.20%	2.10%	8.68%	54.79%	33.23%
Gender					
Male	2.99%	1.49%	5.97%	61.19%	28.36%
Female	0.79%	2.37%	8.30%	53.75%	34.78%
School Level					
Elementary	0.84%	0.84%	9.24%	62.18%	26.89%
Secondary	0.00%	4.23%	12.21%	61.03%	22.54%
Years of Experience					
0-5	1.82%	2.73%	12.73%	47.27%	35.45%
6-10	0.00%	1.56%	7.81%	50.00%	40.63%
11-15	2.04%	2.04%	6.12%	67.35%	22.45%
16-20	0.00%	2.22%	2.22%	68.89%	26.67%
21-25	2.86%	2.86%	5.71%	57.14%	31.43%
26-30	0.00%	0.00%	6.25%	56.25%	37.50%
>30	0.00%	0.00%	25.00%	37.50%	37.50%

Division-Wide Crisis Plans

Item 24 from the survey addressed how the existence of a division-wide crisis plan impacted teacher perceptions of safety. Overall, the study indicated that 88.02% of survey participants believed that the existence of a division-wide crisis plan positively impacted perceptions of safety. Regarding gender, 82.35% of male, female, and non-binary individuals

reported that they agreed or strongly agreed that a division-wide crisis plan positively impacted their perceptions of safety. However, 12.69% were uncertain, and 4.95% disagreed or strongly disagreed that the existence of a division-wide crisis plan had any impact on their safety. Female participants (83.79%) perceived that having a division-wide crisis plan attributed to their perceptions of safety more than male participants (77.61%). Considering school level, 81.63% of respondents agreed or strongly agreed that a division-wide crisis plan positively impacted their safety. However, 13.25% were uncertain, and 4.95% disagreed or strongly disagreed that a division-wide plan kept them safe. Elementary participants (84.87%) perceived that having a division-wide crisis plan attributed to their perceptions of safety more than secondary participants (79.82%). When examining responses based on years of experience, 81.96% of teachers agreed or strongly agreed that a division-wide crisis plan positively impacted their perceptions of safety, 12.84% were uncertain, and 5.20% disagreed or strongly disagreed. For a summary of responses for survey Item 24, refer to Table 31. As confirmed in the table, the majority of survey participants overall, as well as across all three demographic categories, indicated that having a division-wide crisis plan positively impacted their perceptions of safety at school.

Table 31

Item 24. Having a school division-wide crisis plan makes me feel safe at school.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Overall	1.20%	3.89%	13.17%	52.40%	29.34%
Gender					
Male	2.99%	2.99%	16.42%	53.73%	23.88%
Female	0.79%	3.95%	11.46%	52.96%	30.83%
School Level					
Elementary	0.84%	3.36%	10.92%	57.98%	26.89%
Secondary	1.41%	4.23%	14.55%	49.77%	30.05%
Years of Experience					
0-5	1.82%	6.36%	15.45%	43.64%	32.73%
6-10	0.00%	1.56%	14.06%	48.44%	35.94%
11-15	2.04%	4.08%	14.29%	63.27%	16.33%
16-20	0.00%	4.44%	2.22%	71.11%	22.22%
21-25	2.86%	2.86%	8.57%	57.14%	28.57%
26-30	0.00%	0.00%	18.75%	43.75%	37.50%
>30	0.00%	0.00%	25.00%	50.00%	25.00%

Influence of Existing School System Policies on Teacher Perceptions of Safety

Item 25 was the fourth qualitative and final question in the study. The question asked participants if the existence of school system policies pertaining to student discipline and crisis planning influenced their perceptions of safety in school. Of the 353 participants that started the survey, 300 provided an answer to this question. Two key responses emerged upon the completion of the thematic analysis process. Most participants implicitly answered yes or no in some fashion. The majority of responses reflected the belief that the existence of school system policies on student discipline and crisis planning influenced perceptions of safety and was identified by 157 survey participants. However, 43 survey participants believed that these policies for student discipline and crisis planning did not impact their perceptions of safety. For a summary of the themes and an overview of sample responses gathered from the survey for Item 25, see Table 32. As confirmed by the table, the majority of survey participants indicated that

the existence of school system policies pertaining to student discipline and crisis planning positively impacted their perceptions of safety as a teacher.

Table 32

Item 25. Does the existence of school system policies pertaining to student discipline and crisis planning influence your feelings of safety as a teacher? If so, how?

Themes	Responses
Yes (157)	• "Yes, so that people know expectations, the consequences if they are not followed, and also how to react if a crisis occurs [*sic*]." (R 24) • "Yes. It is comforting knowing that my school has a plan and has practiced different scenarios. I know exactly what to do in different crises." (R 59) • "Yes, I feel like crisis planning is necessary in any work environment to feel safe in the case of a crisis. The student discipline is the aspect I'm glad has been looked at in recent years…" (R 75) • "Yes, it increases the feeling of safety by knowing that there is a plan in the event that something should happen" (R 94) • "Yes because it shows that the district has thought through and prepared for different crisis scenarios" (R 104) • "Yes, the school division has a plan of dealing with intruders and other instances. It is reassuring that the division has a crisis plan. It is good to know that they have been proactive rather than reactive." (R 107) • "Yes. I like knowing what I should do in a crisis as have the decisions made solely by me would be frightening." (R 127) • "Yes, because disruptive students can create unsafe situations and teachers need to know that they will be properly dealt with by administration." (R 141) • "Yes, the unknown is way worse...having a plan provides comfort." (R 157) • "Yes; Knowing that staff is prepared makes it feel safer in the building than when nothing is in place and there is no consequence." (R 174) • "Yes, more so for the crisis planning. It is good to know that there is a bigger plan in place with people filling specific roles, just in case. In regards to student discipline, that seems a bit more subjective at times." (R 216) • "Yes. Clear and strong discipline and crisis practices help create a safe environment by providing guidelines to implement." (R 237) • "Yes, because I know there are strict guidelines and very few gray

	areas so I feel supported." (R 272)
No (43)	• "I do not think they do. When I think about my safety as a teacher, I am mainly concerned with intruders, school shooters, etc. not my students behaviors and how their discipline can effect my safety (unless of course that student threatens me or staff at my school)." (R 3) • "No, it does not influence my sense of security." (R 16) • "No, if there is a plan in place that means that someone who wants to cause harm may know it as well and use it to create more havoc. I feel like a lamb being led to slaughter following these plans." (R 56) • "I've been in a situation in my district where my safety was compromised. The safety protocols as set out by the division were not followed in any way shape, form, or manner. School-level policies make me feel safe because I see what's on paper reflected in practice. The same is NOT true for division-level policies." (R 83) • "I've been in a situation in my district where my safety was compromised. The safety protocols as set out by the division were not followed in any way shape, form, or manner. School-level policies make me feel safe because I see what's on paper reflected in practice. The same is NOT true for division-level policies." (R 133) • "Not really. It is a policy like all other policies (tardies, grading etc). All you have to do is follow the plan." (R 148) • "Absolutely not! How can any such plan protect against an assault weapon? Why do airports, courthouses, the House of Representatives and Senate office buildings (you get my drift) check for guns at all entries but schools do not? A plan designed to keep guns out of school, with some real solutions, will address my feelings of safety as a teacher." (R 153) • "Policies and plans just add a routine to follow for me. They don't increase feelings of safety." (R 295)

Data Overview

Explanation of Data

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. The researcher explored the impact of a school's physical characteristics, teacher relationships with their colleagues, school administration practices, and

principals' adherence on teacher perceptions of safety in schools. The researcher administered a survey designed by Leonard (2016) to all teaching staff in the selected school division to examine the influence of school factors on perceptions of teacher safety at school. The study yielded that majority of teachers, regardless of gender, teaching level, or years of experience, felt safe at school. The positive perceptions of safety were influenced primality by the presence of locked outside doors preventing intruders from coming into the school, presence of interior and exterior cameras, locating classrooms inside of the school, colleague support and aid, and adherence to visitor policies as well as administration visibility, practices, and support. Teachers indicated that the presence of locked doors between the main office and the rest of the school was important, as was the presence of school resources officers. Additionally, positive perceptions of school safety were associated with the teachers' knowledge of school safety policies, as well as the utilization of school and division crisis plans.

Survey participants were given the choice to indicate their gender, teaching assignment, and years of experience. The researcher used the identified characteristic data to calculate weighted averages based on the survey Likert scale responses for gender, teaching assignment, and years of experience. These weighted averages were utilized to summarize the data findings. The study indicated that 93.84% of teachers perceived that locked exterior doors led them to feel safer at school, and 86.21% of teachers identified that interior and exterior cameras enhanced their perceptions of safety. However, 24.57% of teachers were concerned about intruders coming into the school facility to commit acts of violence. Furthermore, the study indicated that at least 82.70% of teachers perceived that locked doors between the main office and the remainder of the school positively enhanced their perceptions of school safety. Thus, there is a link between

intruder access to the school facility and the presence of locked doors separating the main office from the remainder of the school facility.

The study identified that 17.92% of teachers were concerned with their safety due to student behavior and 11.56% of teachers were uncertain if student behavior impacted their perceptions of safety. However, the study indicated that 95.28% of teachers perceived colleague support as necessary to promote safety at school. Additionally, 87.31% of teachers perceived that colleague aid during critical student incidents enhanced their perceptions of safety at school.

Thematic Association

Teachers identified several physical school characteristics as well as colleague desired relationships, preferred administrator practices, and adherence to safety policies that influenced their positive perceptions of school safety. Teachers highlighted several building and classroom characteristics that improved their positive perceptions of school safety. The foremost prevalent characteristics included the presence of locked exterior doors, the presence of school resource officers, and camera surveillance. In terms of colleague relationships, teachers identified colleague support, building a trusting relationship, and providing aid when needed as important colleague traits that supported positive perceptions of safety at school.

While examining the impact of principal practices on the perception of safety, teacher participants were given the opportunity to provide advice to new school principals geared towards increasing teachers' positive perceptions of school safety. The majority of teachers conveyed principal visibility, administration supports, and open communication as critical practices needed to enhance teacher perceptions of safety. Furthermore, the study examined the influence of existing school and district safety policies on perceptions of safety. Primarily,

teachers expressed that the existence of school system policies pertaining to student discipline as well as school and district crisis planning enhanced teachers' perceptions of safety in schools.

Summary of Data

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. The study included one primary research question and four supporting research questions. The primary research question examined school factors that influenced teachers' perceptions of safety at school. After analyzing survey data, the results demonstrated that the majority of teachers felt safe at school and identified factors that enhanced their feelings of safety. The factors encompassed physical characteristics highlighted by the first supporting research question and included locked doors, the presence of school resource officers, and the presence of cameras. Additionally, teachers identified colleague relationships as influencing factors. Colleague relationships were underlined in the second supporting research question and included colleague support, fostering a trusting relationship, and providing aid when needed especially with student behavior incidents. Moreover, teachers expressed that administrator practices influenced their perceptions of safety at school. The third supporting research question emphasized that principal visibility, administrator support, and open communication are necessary practices that promoted positive perceptions of school safety among teachers. Furthermore, teachers conveyed that principals' adherence to safety policies impacted their perceptions of safety. The fourth supporting research question examined the importance of the existence of school system policies pertaining to student discipline as well as the adherence to school and district crisis planning. Teachers expressed that the existence of school system policies pertaining to student discipline and principal adherence to school and district crisis planning supported a positive influence on their perceptions of safety.

Even though 92.49% of teachers felt safe at school, the survey results demonstrated to the researcher that 39.31% of teachers either were concerned about intruders coming into the school to commit acts of violence or were uncertain about their concerns. In terms of student behavior, 29.48% of teachers either remained concerned about their safety due to student behavior or were uncertain of the impacts of student behavior on their safety. Additionally, the study assessed how teachers' perceptions of safety progressed over time. Amongst teacher participants, 38.73% indicated that they do not feel as safe now as a teacher as they did ten years ago, whereas 36.13% expressed that their perceptions of safety over time did not change. Chapter Five will provide a summary and discussion of findings, present implications of the findings, highlight conclusions, present recommendations, and suggestions for future studies.

Chapter Five

Discussion

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. The study was an extension of the research methodology used in Leonard's (2016) study entitled *What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?* The study identified factors that influence teacher perceptions of safety. This study explored connections between four areas of a teacher's experiences with their perceptions of safety. The four areas were physical characteristics of schools, relationships with colleagues, school administration practices, and the principals' adherence to division safety policies. The four research sub-questions were:

(1) What physical characteristics of school facilities contribute to perceptions of safety for teachers?

(2) How do relationships with colleagues within the school environment influence perceptions of teacher safety?

(3) How do the practices of school administrators influence perceptions of safety for teachers? and

(4) How does a principal's adherence to division safety policies influence teachers' perceptions of safety?

The study indicated that both physical and visible security measured positively impacted teacher perceptions of safety. Teachers identified that locked exterior doors, the presence of school resource officers, and security cameras positively impacted their perceptions of safety at school. The school environment had an impact on perceptions of teacher safety. Survey participants determined that colleague support positively impacted perceptions of safety. In

addition, school administrators' practices influenced teacher perceptions of safety. Teachers conveyed that principal visibility, administration support, and open communication enhanced their perception of safety at school. Teachers' responses highlighted the importance of their awareness of school and district safety policies, and the existence of crisis plans at the school and division level. Moreover, the majority of teachers' perceptions of safety were not negatively impacted by student behavior or the potential of outside intruder threats. Thus, the study indicated that, overall, teachers perceived that they felt safe at school.

Summary of Findings

After reviewing and analyzing the data, major findings were identified. Those findings, supported by the associated data and referenced research follow.

Finding 1

Teachers perceived that locked doors positively impacted their perceptions of safety. Item 8 from the survey focused on locked exterior doors and their impact on teacher perceptions of safety. The study indicated that 93.84% of total survey participants believed that locked exterior doors impacted their perceptions of safety in a positive manner. For a summary of responses regarding locked doors, refer to Table 15.

The results from the survey contradict some earlier findings. Previous research suggests that more visible security measures can negatively impact student perceptions of safety and had a minimal impact on preventing crime (Addington, 2009; Mowen & Freng, 2019; Tanner-Smith & Fisher, 2016).

Finding 2

Teachers perceived that the presence of security cameras positively impacted teacher perceptions of safety. The study indicated that 86.21% of survey participants believed that security cameras in schools kept them safe. Further, the study indicated that camera utilization reflected a 14.4% increase in positive perceptions of safety compared to Leonard's (2016) study. For a summary of responses regarding security cameras, refer to Table 17.

Previous research on the impact of security cameras in schools, in terms of both student perceptions of safety as well as crime prevention, has been inconsistent. Some researchers found that the presence of security cameras in schools can lower student perceptions of safety (Johnson et al., 2018; Mowen & Freng, 2019; Perumean-Chaney & Sutton, 2013). Others found that the use of security cameras in schools can potentially violate student rights depending on their use and can encourage zero-tolerance practices (Perry-Hazan & Birnhack, 2018). Lastly, some researchers have found that security cameras do little to decrease crime in schools (Fisher et al., 2019).

Finding 3

Teachers perceived that the presence of an SRO in their school positively impacted their perceptions of safety. The study indicated that 81.82% of survey participants believed that having an SRO in the school building positively impacted their safety. For a summary of responses regarding SROs, refer to Table 19.

The research on the impacts SROs have on both student perceptions of safety and prevention of school crime was varying. Juvonen (2001) claimed that the presence of SROs in schools had and negative impact on a school climate. Anderson (2018) found that an increased presence of SROs in schools did not decrease student discipline infractions. Devlin et al. (2018)

found that the presence of SROs did not decrease reports of student bullying. Conversely, some researchers have found a positive correlation between SROs and how students perceive them (Theriot, 2016).

Finding 4

Teachers perceived that colleague support positively impacted their perceptions of safety. This study, as well as Leonard's (2016) study, found a strong link between colleague support and increased teacher perceptions of safety. In this study, 95.28% of teachers believed that colleague support enhanced their perceptions of safety. In Leonard's (2016) study, 89.02% of survey participants agreed that colleague support enhanced their perceptions of safety. In addition, at least 87% of surveyed teachers believed that colleagues would come to their aid during a critical student incident. However, the survey results showed that elementary teachers held this belief more than their secondary counterparts did. For a summary of responses regarding colleague relationships, refer to Table 21.

The study supported the work of Barnes et al. (2012), Fan et al. (2005), Goodwin and Jones (2019), and Gottfredson et al. (2005). These studies identified that schools with strongly perceived climates and cultures had lower levels of violence and that schools with strong authoritative climates created by school leadership with clear rules reported fewer acts of student delinquency and teacher victimization. Further, this study supported the findings from Leonard's (2016) study, which found that relationships between colleagues positively influenced teacher perceptions of safety.

Finding 5

Teachers perceived that administrator visibility, support, and open communication enhanced perceptions of safety. The study indicated that 85.72% of survey participants believed that having a visible administer positively impacted their perceptions of safety. However, the presence of a visible administrator was more important to female teachers than male teachers. Further, 95.24% of survey participants believed that proper implementation of visitor policies impacted their perceptions of safety. All three demographic groups agreed. In addition, a supportive principal positively impacted teacher perceptions of safety. However, female and elementary teachers valued principal support more than male and secondary teachers. Conversely, survey participants with 21-25 years of experience valued principal support the least. For a summary of responses regarding administrator visibility, support, and open communication, refer to Table 24, Table 26, and Table 27.

The study results supported most of the previous research that demonstrated that the actions of the principal impact perceptions of safety in schools. Schools with strong perceived climates and cultures had lower levels of violence (Barnes et al., 2012). Further, schools with strong authoritative climates created by school leadership with clear rules reported fewer acts of student delinquency and teacher victimization (Fan et al., 2005; Goodwin & Jones, 2019; Gottfredson et al., 2005). Additionally, the study supported Leonard's (2016) findings that principal visibility enhanced perceptions of safety at school. However, the study contradicted Wilcox (2018). Wilcox (2018) found that the presence of a visible administrator did not impact perceptions of safety.

Finding 6

Teachers indicated that school crisis plans positively impacted their perceptions of safety. The study indicated that 88.02% of survey participants across all three demographic groups believed that having a school crisis plan positively impacted their perceptions of safety. For a summary of responses regarding the impact of school crisis plans, refer to Table 30.

Kelly (2017) found that principals believed security policy and practices were the most important aspect of school safety. Further, Price et al. (2016) found that principals believed the most effective safety strategy was to work with local law enforcement to create emergency response plans. Lastly, Payton et al. (2017) found that parents believed that an alert system to notify school personnel of an emergency was the most effective crisis response.

Finding 7

Teachers indicated that division-level safety plans positively impacted their perceptions of safety. The study indicated 88.02% of survey participants believed that the existence of a division-wide crisis plan positively impacted perceptions of safety. For a summary of responses regarding the impact of division-level safety plans, refer to Table 31.

Regarding *Finding 6* and *Finding 7*, Leonard (2016) found that school safety policies did not impact teacher perceptions of safety, whereas 88.02% of teachers in this study indicated that they did positively impact their perceptions of safety. For a summary of responses regarding the impact of school and division-level safety plans, refer to Table 27 and Table 28.

Finding 8

Teachers perceived that they felt safe at school. Overall, the study indicated that 92.49% of survey participants felt safe at school. For a summary of responses regarding the teachers feeling safe at school, refer to Table 11.

The findings from this study regarding teacher perceptions of overall safety were slightly higher than those found by Leonard (2016). Further, in this study, 61% of survey participants reported that they were not concerned about outside intruders coming into the building to commit acts of violence. However, female teachers were more concerned than male teachers about outside intruders. In contrast, Leonard (2016) found that 56% of surveyed teachers were concerned with outside intruders coming into their school and committing acts of violence. These studies point to an increase in teacher perceptions of safety over the past five years, as well as a decrease in teacher concern in terms of the influence outside intruders entering the building on perceptions of safety. This increase in teacher perceptions of safety supports previous research that argued that the fear associated with school violence has been exaggerated and many cases are media-driven (Addington, 2003; Burnes & Crawford, 1999; Goode & Ben-Yehunda, 2009; King & Bracy, 2019; Madfis, 2016; Roque, 2012).

Implications of Findings

Having reviewed the findings in this research, several implications for school leaders were identified. Those implications are noted below with brief explanations.

Implication 1

Educational leaders should take steps to make sure that all exterior doors are locked at all times and are in good working order. The study showed that locked exterior doors, as

well as a locked door between the main office and the remainder of the school, positively impacted teacher perceptions of safety. School divisions investing in school facility upgrades that add locked doors or vestibules between the main office and the rest of the school building could increase teacher perceptions of safety. This implication is associated with *Finding 1*.

Implication 2

School division leaders should take the necessary steps to make sure the security cameras are in good working order, consistently viewed by trained school staff, and updated as needed. School divisions should consider setting aside funds during their budgetary process as well as seeking grant money to add additional cameras in their schools in both high traffic areas such as gyms, cafeterias, stairwells, and areas that are not currently covered as these actions could increase teacher perceptions of safety. This implication is associated with *Finding 2*.

Implication 3

School divisions should seek to form partnerships with local law enforcement agencies to employ SROs who are trained to work with students in schools. School divisions should collaboratively form a memorandum of understanding with local law enforcement so that each entity understands their roles and responsibilities as well as any necessary policies involved in their partnership. Placing SROs in schools who are appropriately trained to interact with students and staff could positively impact teacher perceptions of safety. This implication is associated with *Finding 3*.

Implication 4

School leaders should prioritize time for their teachers to collaborate not only for academic purposes but socially as well to get build personal relationships beyond the classroom walls. As such, school leaders should prioritize time for their teachers to collaborate not only for academic purposes but socially as well to get build personal relationships beyond the classroom walls. School leaders should develop teacher mentorship and colleague programs to support all teachers and provide advice and guidance especially in the area of student discipline. Further, school administrators should create a school culture based on teacher communication and collaboration as wells as open communication between teachers and administrators. This implication is associated with *Finding 4*.

Implication 5

Administrators should establish consistent practices and routines that regularly create opportunities for them to be seen and interact with teachers outside of their offices. Teachers conveyed that principal visibility, administration support, and open communication enhanced their perception of safety at school. Administrators should model and practice collaborative communication and problem-solving strategies with their staff to potentially enhance teacher support and teacher perceptions of safety in the building. These actions could build a positive school culture, and enhance relationships between administrators and students, teachers, and parents**.** This implication is associated with *Finding 5*.

Implication 6

Administrators should appropriately share both school and division-level safety policies and plans with all staff members multiple times a year. Teachers highlighted the

importance of their awareness of school and district safety policies, and the existence of crisis plans at the school and division level. School staff should be included in the development and implementation of safety policies and plans. Any updates to safety policies and practices at the school and division level should be communicated with staff quickly and efficiently. Lastly, safety policies and practices should be reviewed often with stakeholders when appropriate. This implication is associated with *Finding 6*.

Implication 7

School divisions should continue to provide appropriate safety protocols and practices to give teachers a sense of safety and security. The study indicated that overall, at least 92.63% of survey participants felt safe at school. School leaders should continue to create and implement safety protocols for teachers as they can impact teacher perceptions of safety in the school building. This implication is associated with *Finding 7*.

Suggestions for Future Research

The purpose of the study was to identify factors that influence teacher perceptions of safety within the school environment. This study was limited to one Virginia school division in Region IV. Future studies should consider expanding their research to include all school divisions in Region IV for comparative purposes. For more generalizable results, future research should expand division selection to include geographically and economically diverse divisions in Virginia.

Future studies should consider including all school staff members in their research sampling and not limiting their participants to teachers. While this study focused solely on teachers, they are not the only members of school staff that deal with safety issues. Research including all members of school staff to include teachers, para educators, counselors and

educational specialists, office staff, cafeteria employees, and custodial staff could provide a more accurate representation of what impacts perceptions of safety in a school or school division.

Furthermore, future research should consider expanding the qualitative portion of this study to include focus groups. Individual future studies can utilize focus groups to determine the impacts of locked doors, the presence of SROs, security cameras, and principal visibility and support independently on perceptions of safety in schools. Focus groups can highlight how each of these facility characteristics impacts safety as teacher perceptions of safety differ by gender, school level, and years of experience.

Summary

Chapter Five provided a summary and discussion of findings, presented implications of the findings, highlighted conclusions, and presented recommendations and suggestions for future studies. In summary, the study indicated that both physical and visible security measured impacted teacher perceptions of safety. Teachers identified that locked exterior doors, the presence of school resource officers, and security cameras positively impacted their perceptions of safety at school. The school environment had an impact on perceptions of teacher safety. Survey participants determined that colleague support positively impacted perceptions of safety. In addition, school administrators' practices influenced teacher perceptions of safety. Teachers conveyed that principal visibility, administration support, and open communication enhanced their perception of safety at school. Further, teachers highlighted the importance of their awareness of school and district safety policies, and the existence of crisis plans at the school and division level. Moreover, the majority of teachers' perceptions of safety were not negatively impacted by student behavior or the potential of outside intruder threats. Thus, the study indicated that, overall, teachers felt safe at school.

Reflections

Overall, the deployment of the survey, as well as the data collection, went smoothly. Although the number of survey participants was strong, several mitigating factors could have impacted participation and completion numbers. First, the survey was conducted at the end of the school year in May of 2021. This time of year was very busy for teachers as they were faced with testing and end-of-year responsibilities. Second, the survey was conducted during the COVID-19 pandemic. Finally, the survey methodology utilized both qualitative and qualitative elements. In some cases, survey participants stopped completing the survey when they reached the qualitative portions of the instrument.

Overall, this research study was a positive experience. Aggregating the data, especially from the qualitative portion of the study, provided insights from teachers regarding their perceptions of safety that are not readily available elsewhere. The majority of the survey participants took the qualitative portion of the study seriously. While some participants provided one-word answers, most gave thorough and thoughtful responses. Further, while some participants saw this survey as a means to voice their complaints, the majority offered valuable insights regarding factors that influenced their perceptions of safety in school buildings.

References

Addington, L. A. (2003). Students' fear after Columbine: Findings from a randomized experiment. *Journal of Quantitative Criminology*, *19*(4), 367–387. https://doi.org/10.1023/B:JOQC.0000005440.11892.27

Addington, L. A. (2009). Behavioral scientist as a policy response to Columbine. *American Behavioral Scientist*, *52*(10), 1426–1446. https://doi.org/10.1177/0002764209332556

Anderson, K. (2018). Policing and middle school: An evaluation of a statewide school resource officer policy. *Middle Grades Review*, *4*(2), 7.

Are Metal Detectors a Solution For School Security? - BeSafe - School and Workplace Safety. (2020, March 18). Retrieved from https://www.besafe.net/news/metal-detectors-in-school-security-safety-solution/

Bachman, R., Randolph, A., & Brown, B. L. (2011). Predicting perceptions of fear at school and going to and from school for african american and white students: The effects of school security measures. *Youth and Society*, *43*(2), 705–726. https://doi.org/10.1177/0044118X10366674

Barchard, K. A., & Pace, L. A. (2011). Preventing human error: The impact of data entry methods on data accuracy and statistical results. *Computers in Human Behavior*, *27*(5), 1834–1839. https://doi.org/10.1016/j.chb.2011.04.004

Barnes, K., Brynard, S., & de Wet, C. (2012). The influence of school culture and school climate on violence in schools of the Eastern Cape Province. *South African Journal of Education*, *32*(1), 69–82. https://doi.org/10.15700/saje.v32n1a495

Bishop, P. A., & Herron, R. L. (2015). Use and misuse of the likert item responses and other ordinal measures. *International Journal of Exercise Science*, *8*(3), 297–302. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/27182418%0Ahttp://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC4833473

Blad, E. (2017). Do Schools' "Active-shooter" drills prepare or frighten? *Education Week*, *37*, 4–9. Retrieved from https://www.edweek.org/ew/.../do-schools-active-shooter-drills-prepare-or-frighten.html

Boateng, G. O., Neilands, T. B., Frongillo, E. A., Melgar-Quiñonez, H. R., & Young, S. L. (2018). Best practices for developing and validating scales for health, social, and behavioral research: A primer. *Frontiers in Public Health*, *6*(June), 1–18. https://doi.org/10.3389/fpubh.2018.00149

Borum, R., Cornell, D. G., Modzeleski, W., & Jimerson, S. R. (2010). What can be done about school shootings? a review of the evidence. *Educational Researcher*, *39*(1), 27–37. https://doi.org/10.3102/0013189X09357620

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3, 77–101. doi:10.1191/ 1478088706qp063oa

Brenan, M. (2021, March 23). *Parents' concern about school safety remains elevated*. Gallup.com. https://news.gallup.com/poll/265868/parents-concern-school-safety-remains-elevated.aspx.

Buchholz, K., & Richter, F. (2019, November 15). *Infographic: Number of school shootings increased every decade*. Statista Infographics. Retrieved October 6, 2021, from https://www.statista.com/chart/19982/number-of-us-k-12-school-shootings-per-decade/.

Burns, R., & Crawford, C. (1999). School shootings, the media, and public fear: Ingredients for a moral panic. *Crime, Law and Social Change, 32*(2), 147-168.

Code of Virginia, Chapter 9, 22.1-137.2., Lock-down drills, 2013, c. 609.

Code of Virginia, Chapter 9, 22.1-137.2., Lock-down drills, 2016, c. 524.

Cornell, D., Allen, K., & Fan, X. (2012). A randomized controlled study of student threat assessment. *School Psychology Review, 41*(1), 100–115. https://curry.virginia.edu/sites/default/files/images/YVP/Threat Assessment Research Publications updated 11-24-18-2.pdf

Cornell, D. G., Gregory, A., & Fan, X. (2011). Reductions in long-term suspensions following adoption of the Virginia student threat assessment guidelines. *NASSP Bulletin, 95*(3), 175–194. doi: 10.1177/0192636511415255

Cornell, D. & Sheras, P. (2006). Guidelines for responding to student threats of violence. Longmont, CO: Sopris West.

Cornell, D. G., Sheras, P. L., Kaplan, S., McConville, D., Douglass, J., Elkon, A., … Cole, J. (2004). Guidelines for student threat assessment: Field-test findings. *School Psychology Review*, *33*(4), 527–546.

Cox, J. W., & Rich, S. (2018, November 13). *School shootings have fueled a $2.7 billion school safety industry. What makes kids safer?* Washington Post.

https://www.washingtonpost.com/graphics/2018/local/school-shootings-and-campus-safety-industry

Cox, J. W., Rich, S., Chiu, A., Muyskens, J., & Ulmanu, M. (2021). More than 240,000 students have experienced gun violence at school since Columbine. Retrieved February 15, 2021, from https://www.washingtonpost.com/graphics/2018/local/school-shootings-database/

Creswell, J. W., & Hirose, M. (2019). Mixed methods and survey research in family medicine and community health. *Family Medicine and Community Health*, *7*(2), 1–6. https://doi.org/10.1136/fmch-2018-000086

Crossman, A. (2019). *Understanding how moral panic threatens freedom*. ThoughtCo. https://www.thoughtco.com/moral-panic-3026420.

Dahlkamp, S., Peters, M. L., & Schumacher, G. (2017). Principal self-efficacy, school climate, and teacher retention: A multi-level analysis. *Alberta Journal of Educational Research*, *63*(4), 257–276.

Delaney, K. K. (2017). Playing at violence: lock-down drills, 'bad guys' and the construction of 'acceptable' play in early childhood. *Early Child Development and Care*, *187*(5–6), 878–895. https://doi.org/10.1080/03004430.2016.1219853

DeMitchell, T. A., & Rath, C. C. (2019). Armed and dangerous - teachers? A policy response to security in our public schools. *BYU Education & Law Journal*, 63–93.

Devlin, D. N., Santos, M. R., & Gottfredson, D. C. (2018). An evaluation of police officers in schools as a bullying intervention. *Evaluation and Program Planning*, *71*(March 2017), 12–21. https://doi.org/10.1016/j.evalprogplan.2018.07.004

Earthman, G. I. (2019). *Planning educational facilities: What educators need to know* (5th ed.). New York, NY: Rowman & Littlefield.

Etikan, I., Musa, S.A., & Alkassim, R.S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1. https://doi.org/10.11648/j.ajtas.20160501.11

Fabelo, T., Thompson, M. D., Plotkin, M., Carmichael, D., Marchbanks, M. P., & Booth, E. A. (2011). Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement. New York, NY: Council of State Governments Justice Center.

Fan, X., Gregory, A., & Cornell, D. (2012). Teacher safety and authoritative school climate in high schools. *American Journal of Education*, *118*(4), 401–425.

Fisher, B. W., Higgins, E. M., & Homer, E. M. (2019). School crime and punishment and the implementation of security cameras: findings from a national longitudinal study. *Justice Quarterly, (2019)*. https://doi.org/10.1080/07418825.2018.1518476

Gastic, B. (2011). Metal detectors and feeling safe at school. *Education and Urban Society*, *43*(4), 486–498. https://doi.org/10.1177/0013124510380717

Gastic, B., & Johnson, D. (2015). Disproportionality in daily metal detector student searches in U.S. public schools. *Journal of School Violence*, *14*(3), 299–315. https://doi.org/10.1080/15388220.2014.924074

Goode, E., & Ben-Yehuda, N. (2009). *Moral panics: The social construction of deviance.* Oxford: Wiley-Blackwell.

Goodwin, B., & Jones, L. M. (2019). Beyond locks and drills. Helping students feel safe in school requires a soft touch. *Educational Leadership*, *77*(2), 82–83.

Gottfredson, G. D., Gottfredson, D. C., Payne, A. A., & Gottfredson, N. C. (2005). School climate predictors of school disorder: Results from a national study of delinquency prevention in schools. *Journal of Research in Crime and Delinquency*, *42*(4), 412–444. https://doi.org/10.1177/0022427804271931

Grabow, C., & Rose, L. (2018, May 21). *School shootings in the US compared with the rest of the world*. CNN. https://edition.cnn.com/2018/05/21/us/school-shooting-us-versus-world-trnd/index.html

Grady, C., Cummings, S. R., Rowbotham, M. C., Mcconnell, M. V, Ashley, E. A., ... (2021). Informed consent. *The New England Journal of Medicine*, *376*(9), 856-876.

Grela, G. (2013). Does weighted average really work? *Active Citizenship by Knowledge Management & Innovation: Proceedings of the Management, Knowledge and Learning International Conference 2013*, 1219–1227. http://www.toknowpress.net/ISBN/978-961-6914-02-4/papers/ML13-391.pdf

Haggag, K., Pope, D. G., Bryant-Lees, K. B., & Bos, M. W. (2019). Attribution bias in consumer choice. *Review of Economic Studies*, *86*(5), 2136–2183. https://doi.org/10.1093/restud/rdy054

Hammarberg, K., Kirkman, M., & De Lacey, S. (2016). Qualitative research methods: When to use them and how to judge them. *Human Reproduction*, *31*(3), 498–501. https://doi.org/10.1093/humrep/dev334

Hankin, A., Hertz, M., & Simon, T. (2011). Impacts of metal detector use in schools: Insights from 15 years of research. *Journal of School Health*, *81*(2), 100–106.

https://doi.org/10.1111/j.1746-1561.2010.00566.x

Hanson, W. E., Plano Clark, V. L., Petska, K. S., Creswell, J. W., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology*, *52*(2), 224–235. https://doi.org/10.1037/0022-0167.52.2.224

Heilbrun, A., & Cornell, D. (2009). Principal attitudes regarding zero tolerance and racial disparities in school suspensions. *Revista de Educacion*, *46*(6), 539–552. https://doi.org/10.1002/pits

"I'm scared" – 21 teachers on what It's like teaching in a global pandemic. (2020, December 09). https://www.pbs.org/newshour/extra/2020/12/im-scared-21-teachers-on-what-its-like-teaching-in-a-global-pandemic/

Infante-Rivard, C., & Cusson, A. (2018). Reflection on modern methods: Selection bias—a review of recent developments. *International Journal of Epidemiology*, *47*(5), 1714–1722. https://doi.org/10.1093/ije/dyy138

Jabareen, Y. (2009). Building a conceptual framework: philosophy, definitions, and procedure. *International Journal of Qualitative Methods*, *8*(4), 49–62. https://doi.org/10.1177/160940690900800406

Johnson, C. L. (2017). Preventing school shootings: The effectiveness of safety measures. *Victims & Offenders, 12,* 956-973.

Johnson, S. L., Bottiani, J., Waasdorp, T. E., & Bradshaw, C. P. (2018). Surveillance or safekeeping? how school security officer and camera presence influence students' perceptions of safety, equity, and support. *Journal of Adolescent Health*, *63*(6), 732–738. https://doi.org/10.1016/j.jadohealth.2018.06.008

Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, *7*(4), 396–403. https://doi.org/10.9734/bjast/2015/14975

Juvonen, J. (2001). School violence: Prevalence, fears, and prevention (RAND Issue Paper). Retrieved from http://www.rand.org/pubs/issue_papers/IP219/

Kaliyadan, F., & Kulkarni, V. (2019). Types of Variables, Descriptive Statistics, and Sample Size. *Indian Dermatology Online Journal*, *10*, 82–86. https://doi.org/10.4103/idoj.IDOJ_468_18

Kelly, B. P. (2017). K-12 and the active shooter: Princpals' perceptions of armed personnel in NJ district factor group "GH" public school. *International Journal of Arts and Sciences*, *10*(2), 493–523.

King, N. (2004). Using templates in the thematic analysis of text. In C. Cassell & G. Symon (Eds.), Essential guide to qualitative methods in organizational research (pp. 257–270). London, UK: Sage.

King, S., & Bracy, N. L. (2019). School security in the post-columbine era: Trends, consequences, and future directions. *Journal of Contemporary Criminal Justice*, *35*(3), 274–295. https://doi.org/10.1177/1043986219840188

Kowalski, T.J. (2002). Planning and managing school facilities (2nd ed.), Greenwood Publishing Group, Westport, CT.

Krisch, J.A. (2018, May 1). Active shooter drills are traumatizing a generation: There's scant evidence that students internalize skills acquired during active shooter drills and plenty that they are traumatized by those experiences. *Fatherly*. http://www.fatherly.com/health-

science/active-shooter-drills-traumatize-kids-safety/?2018multi=control-h2

Kupchik, A., & Farina, K. A. (2016). Imitating authority: Students' perceptions of school punishment and security, and bullying victimization. *Youth Violence and Juvenile Justice*, *14*(2), 147–163. https://doi.org/10.1177/1541204014557648

Landrum, T. J., Sweigart, C. A., & Collins, L. W. (2019). School shootings: What we know, what we can do. *Educational Leadership*, *77*(2), 36–41.

Leiner, M., De la Vega, I., & Johansson, B. (2018). Deadly mass shootings, mental health, and policies and regulations: What we are obligated to do! *Frontiers in Pediatrics*, *6*, 20–22. https://doi.org/10.3389/fped.2018.00099

Leonard, N.H. (2016). *What school factors influence teachers' perceptions of safety in their classrooms and schools?* (Doctoral dissertation). Retrieved from lib.vt.edu.

Losen, D., & Skiba, R. (2010). UCLA: The civil rights Pproject. ProyectoDerechosCiviles. Retrieved from: Http://escholarship.org/uc/item/8fh0dv

Madfis, E. (2016). "It's better to overreact": School officials' fear and perceived risk of rampage attacks and the criminalization of American public schools. *Critical Criminology*, *24*(1), 39–55. https://doi.org/10.1007/s10612-015-9297-0

Maeng, J. L., Malone, M., & Cornell, D. (2020). Student threats of violence against teachers: Prevalence and outcomes using a threat assessment approach. *Teaching and Teacher Education*, *87*, 102934. https://doi.org/10.1016/j.tate.2019.102934

Magliozzi, D. (2018, September 10). Active shooter drills may reshape how a generation of students views school. Retrieved December 12, 2019, from https://theconversation.com/active-shooter-drills-may-reshape-how-a-generation-of-

students-views-school-93709

McCambridge, J., Witton, J., & Elbourne, D. R. (2014). Systematic review of the Hawthorne effect: New concepts are needed to study research participation effects. *Journal of Clinical Epidemiology*, *67*(3), 267–277. https://doi.org/10.1016/j.jclinepi.2013.08.015

McMillan, J. H., & Wergin, J. F. (2010). *Understanding and evaluating educational research* (4th ed.). New York, NY: Pearson.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). San Fransisco, CA: Jossey-Bass.

Mears, D. P., Montes, A. N., Collier, N. L., Siennick, S. E., Pesta, G. B., Brown, S. J., & Blomberg, T. G. (2018). The benefits, risks, and challenges of get-tough and support-oriented approaches to improving school safety. *Criminal Justice Policy Review*. https://doi.org/10.1177/0887403418786553

Mosa, A. S. ale. M., Yoo, I., & Parker, J. C. (2015). Online electronic data capture and research data repository system for clinical and translational research. *Missouri Medicine*, *112*(1), 46–52.

Mowen, T. J., & Freng, A. (2019). Is more necessarily better? School security and perceptions of safety among students and parents in the united states. *American Journal of Criminal Justice*, *44*(3), 376–394. https://doi.org/10.1007/s12103-018-9461-7

Musu-Gillette, L., Zhang, A., Wang, K., Zhang, J., Kemp, J., Diliberti, M., & & Oudekerk, B. (2018). Indicators of school crime and safety: 2017. Washington, DC: US Department of Justice, Bureau of Justice Statistics and US Department ofEducation, National Center for

Education Statistics. Available at: https://nces.ed.gov/pubs2018/2018036.pdf

Na, C., & Gottfredson, D. C. (2013). Police officers in schools: Effects on school crime and the processing of offending behaviors. *Justice Quarterly*, *30*(4), 619–650. https://doi.org/10.1080/07418825.2011.615754

Nekvasil, E. K., & Cornell, D. G. (2015). Student threat assessment associated with safety in middle schools. *Journal of Threat Assessment and Management*, *2*(2), 98–113. https://doi: 10.1037/tam0000038

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*(1), 1–13. https://doi.org/10.1177/1609406917733847

Pace, W. D., & Staton, E. W. (2005). Electronic data collection options for practice-based research networks. *Annals of Family Medicine*, *3*(SUPPL.1), 21–29. https://doi.org/10.1370/afm.270

Parker, G. E. (2016). A framework for navigating institutional review board (IRB) oversight in the complicated zone of research. *Cureus*, *8*(10). https://doi.org/10.7759/cureus.844

Payton, E., Khubchandani, J., Thompson, A., & Price, J. H. (2017). Parents' expectations of high schools in firearm violence prevention. *Journal of Community Health*, *42*(6), 1118–1126. https://doi.org/10.1007/s10900-017-0360-5

Perry-Hazan, L., & Birnhack, M. (2018). The hidden human rights curriculum of surveillance cameras in schools: due process, privacy and trust. *Cambridge Journal of Education*, *48*(1), 47–64. https://doi.org/10.1080/0305764X.2016.1224813

Perumean-Chaney, S. E., & Sutton, L. M. (2013). Students and perceived school safety: The

impact of school security measures. *American Journal of Criminal Justice*, *38*(4), 570–588. https://doi.org/10.1007/s12103-012-9182-2

Peterson, J., Sackrison, E., & Polland, A. (2015). Training students to respond to shootings on campus: Is it worth it? *Journal of Threat Assessment and Management*, *2*(2), 127–138. https://doi.org/10.1037/tam0000042

Price, J. H., Khubchandani, J., Payton, E., & Thompson, A. (2016). Reducing the risks of firearm violence in high schools: Principals' perceptions and practices. *Journal of Community Health*, *41*(2), 234–243. https://doi.org/10.1007/s10900-015-0087-0

Retention of research records and destruction of data. Research. (n.d.). Retrieved October 10, 2021, from https://research.virginia.edu/irb-sbs/retention-research-records-and-destruction-data.

Rocque, M. (2012). Exploring school rampage shootings: Research, theory, and policy. *Social Science Journal*, *49*(3), 304–313. https://doi.org/10.1016/j.soscij.2011.11.001

Rogers, J. (2019). For school leaders, a time of vigilance and caring. *Educational Leadership*, *77*(2), 22–28.

Ross, P. T., & Bibler Zaidi, N. L. (2019). Limited by our limitations. *Perspectives on Medical Education*, *8*(4), 261–264. https://doi.org/10.1007/s40037-019-00530-x

Saleh, A., & Bista, K. (2017). Examining factors impacting online survey response rates in educational research: Perceptions of graduate students. *Journal of multidisciplinary evaluation*, *13*(29), 63–74. Retrieved from http://journals.sfu.ca/jmde/index.php/jmde_1/article/view/487

Schildkraut, J., & Grogan, K. (2018). *Are metal detectors effective at making schools safer ?* 1–5.

Schreck, C. J., & Miller, J. M. (2003). Sources of fear of crime at school: What is the relative contribution of disorder, individual characteristics, and school security? *Journal of School Violence*, *2*(4), 57–79. https://doi.org/10.1300/J202v02n04_04

Sickmund, M., & Puzzanchera, C. (2014). *Juvenile offenders and victims: 2014 national report.* Pittsburgh, PA: National Center for Juvenile Justice.

Simon, J. (2006). *Governing through crime: How the war on crime transformed american democracy and created a culture of fear.* New York, NY: Oxford University Press.

Skiba, R. J. (2013). Reaching a critical juncture for our kids: The need to reassess school-justice practices. *Family Court Review, 51,* 380-387.

Skiba, R. J., & Rausch, M. K. (2013). Zero tolerance, suspensions, and expulsion: Questions of equity and effectiveness. In C.M. Everston & C.S. Weinsten (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues (*pp. 1063-1089). New York: Routledge.

Strong, K., & Cornell, D. (2008). Student threat assessment in memphis city schools: A descriptive report. *Behavioral Disorders*, *34*(1), 42–54. https://doi.org/10.1177/019874290803400104

Sykes, B., Piquero, A. R., Gioviano, J. & Pittman, N. (2015). *The schoot-to-prison pipeline in America, 1792-2012.* Oxford Handbooks Online.

Swartz, K., Osborne, D. L., Dawson-Edwards, C., & Higgins, G. E. (2016). Policing schools: Examining the impact of place management activities on school violence. *American Journal of Criminal Justice*, *41*(3), 465–483. https://doi.org/10.1007/s12103-015-9306-6

Tanner-Smith, E. E., & Fisher, B. W. (2016). Visible school security measures and student academic performance, attendance, and postsecondary aspirations. *Journal of Youth and Adolescence*, *45*(1), 195–210. https://doi.org/10.1007/s10964-015-0265-5

Tanner-Smith, E. E., Fisher, B. W., Addington, L. A., & Gardella, J. H. (2018). Adding security, but subtracting safety? Exploring schools' use of multiple visible security measures. *American Journal of Criminal Justice*, *43*(1), 102–119. https://doi.org/10.1007/s12103-017-9409-3

Theriot, M. T. (2016). The impact of school resource officer interaction on students' feelings about school and school police. *Crime and Delinquency*, *62*(4), 446–469. https://doi.org/10.1177/0011128713503526

Tillyer, M. S., Fisher, B. S., & Wilcox, P. (2011). The effects of school crime prevention on students violent victimization, risk perception, and fear of crime: A multilevel opportunity perspective. *Justice Quarterly*, *28*(2), 249–277. https://doi.org/10.1080/07418825.2010.493526

Tsang, S., Royse, C. F., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi Journal of Anesthesia*, *11*(Suppl 1), S80–S89. https://doi.org/10.4103/sja.SJA_203_17

Tripepi, G., Jager, K. J., Dekker, F. W., & Zoccali, C. (2010). Selection bias and information bias in clinical research. *Nephron - Clinical Practice*, *115*(2).

https://doi.org/10.1159/000312871

Trosper, S (2017). *Safe school building characteristics in Virginia's elementary schools: Architect and principal perspectives* (Doctoral dissertation). Retrieved from lib.vt.edu.

Virginia Department of Education. (2019). *2019 Virginia Working Conditions Survey.*

Walker, T. (2018, March 13). NEA survey: Educators say no to arming teachers, favor real solutions to gun violence. Retrieved February 18, 2021, from https://www.nea.org/advocating-for-change/new-from-nea/nea-survey-educators-say-no-arming-teachers-favor-real-solutions

Walton, R. H. (2011). *Physical designs for safe schools* (Doctoral dissertation). Retrieved from lib.vt.edu.

Wilcox, N. M. (2018). *Building features that impact perceptions of safety as seen through the eyes of students and teachers* (Doctoral dissertation). Retrieved from lib.vt.edu.

Woitaszewski, S., Crepeau-Hobson, F., Conolly, C., & Cruz, M. (2017). *Rules, requirements, and resources for school-based threat assessments: A fifty state analysis.* Contemporary School Psychology.

APPENDIX A

Electronic Survey

Informed Consent
Please make the appropriate selection below acknowledging that you read, and give consent to participate in the survey.

___ Yes
___ No

Teacher Characteristics
Please respond to each question below by selecting the response item that applies to you by filling in the blank.

1. How many years have you been teaching (including this year)? _____

2. What is your gender?

___ Female ___ Male

3. What grade levels do you teach?
_____Elementary
_____Middle
_____Secondary

Research Question 1
What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?

Please provide your opinion about each of the statements by selecting the most appropriate number using the following scale:
Strongly Disagree:1; Disagree:2; Uncertain:3; Agree: 4; Strongly Agree:5

4. I feel safe at school.
   1 2 3 4 5

5. I am concerned about outside intruders coming into my school and committing acts of violence.
   1 2 3 4 5

6. I am concerned for my safety due to student behavior.
   1 2 3 4 5

7. I feel as safe now as a teacher as I felt, or would have felt, ten years ago as a teacher.

1 2 3 4 5

Research Question 2
What physical characteristics of school facilities contribute to feelings of safety for teachers?

Please provide your opinion about each of the statements by selecting the most appropriate number using the following scale:
Strongly Disagree:1; Disagree:2; Uncertain:3; Agree: 4; Strongly Agree:5

8. Locked exterior doors make me feel safe at school.
   1 2 3 4 5

9. Locked doors between the main office of the school and the remainder of the school that prevents visitors from accessing the classrooms make me feel safe.
   1 2 3 4 5

10. Security cameras on the interior and exterior of a school make me feel safe at school.
    1 2 3 4 5

11. Having a classroom located inside the main school building makes me feel safe.
    1 2 3 4 5

12. It is important to my feelings of safety to have a resource officer in my school building.
    1 2 3 4 5

13. What do you feel are the most important school and classroom facility characteristics in making you feel safe as a teacher?

Research Question 3
How do relationships with colleagues within the school environment influence perceptions of teacher safety?

Please provide your opinion about each of the statements by selecting the most appropriate number using the following scale:
Strongly Disagree:1; Disagree:2; Uncertain:3; Agree: 4; Strongly Agree:5

14. I feel safe when I work in a school with colleagues who support me.
    1 2 3 4 5

15. My colleagues come to my aid during a critical student incident.
    1 2 3 4 5

16. How do colleague relationships influence your feelings of safety as a teacher?

Research Question 4
How do the practices of school administrators influence perceptions of safety for teachers?

Please provide your opinion about each of the statements by selecting the most appropriate number using the following scale:
Strongly Disagree:1; Disagree:2; Uncertain:3; Agree: 4; Strongly Agree:5

17. Having an administrator who is visible during the school day makes me feel safe at school.
    1 2 3 4 5

18. Adherence to visitor policy by administration makes me feel safe at school.
    1 2 3 4 5

19. The administrative practices of my school principal important to my feelings of safety.
    1 2 3 4 5

20. The support of a building principal makes me feel safe at school.
    1 2 3 4 5

21. What advice would you give to new principals to increase teachers' perceptions of safety in schools?

Research Question 5
How does a principal's adherence to division safety policies influence teachers' perceptions of safety?

Please provide your opinion about each of the statements by selecting the most appropriate number using the following scale:
Strongly Disagree:1; Disagree:2; Uncertain:3; Agree: 4; Strongly Agree:5

22. Are you knowledgeable about the school division safety policies?
    1 2 3 4 5

23. Having a school crisis plan makes me feel safe at school.
    1 2 3 4 5

24. Having a school division-wide crisis plan makes me feel safe at school.
    1 2 3 4 5

25. Does the existence of school system policies pertaining to student discipline and crisis planning influence your feelings of safety as a teacher? If so, how

APPENDIX B

INFORMED CONSENT

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants in **Research Projects Involving Human Subjects**

Title of Project: What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?

Investigator(s): Nate Bopp, [redacted]

I. The purpose of the study is to describe school factors that make teachers feel safe. When exploring teachers' feelings of safety within their schools and classrooms, four primary areas of teachers' work environments exist. Those four main areas are the physical environment in which teachers work, the relationships with colleagues, and the practices of administration and their adherence to division safety policies. The findings of this study will provide information to educational leaders regarding school building and classroom characteristics, teacher colleague relationships, and school leadership policy and practices that influence teachers' feelings of safety.

II. Procedures
As part of the study, you are asked to complete an electronic survey. Upon IRB approval, teachers will be contacted to request participation in the study. Teachers are invited to participate in data collection by completing the electronic survey. Participation is voluntary and will not affect your employment with your school division. The survey should take about 10 minutes and may be completed at any time during the data collection window. If you agree to participate in this study, please select 'yes' for the informed consent and continue on with the survey.

III. Risks
There are no risks with this research study. Please know that survey data will be submitted anonymously. The only identifying variables include gender, school level, and years in teaching. Specific school data will not be disaggregated.

IV. Benefits
Please know that no promise or guarantee of benefits has been made to encourage you to participate.

V. Extent of Anonymity and Confidentiality
All data will be collected anonymously. Informed consent data is the only identifiable information and, as such, will be stored separately. The only identifying variables are gender, school level, and years in teaching. These data will be used to describe the sample population

and will be coded to increase anonymity. Specific school data will not be disaggregated. At no time will the researchers release identifiable results of the study to anyone other than individuals working on the project without your written consent.

The Virginia Tech (VT) Institutional Review Board (IRB) may view the study's data for auditing purposes. The IRB is responsible for the oversight of the protection of human subjects involved in research.

VI. Compensation
Participation in this study does not include compensation. However, your valued time will add to the limited research regarding school factors contributing to feelings of safety for teachers.

VII. Subject's Consent
I have read the Consent Form and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent. Choose 'yes' on the prompt above to grant consent and continue with the survey.

VIII. Freedom to Withdraw
It is important for you to know that you are free to withdraw from this study at any time without penalty. You are free not to answer any questions that you choose or respond to what is being asked of you without penalty. Please note that there may be circumstances under which the investigator may determine that a subject should not continue as a subject. Should you withdraw or otherwise discontinue participation, you will be compensated for the portion of the project completed in accordance with the Compensation section of this document.

IX. Questions or Concerns
Should you have any questions about this study, you may contact one of the research investigators whose contact information is listed below:

Nate Bopp – [redacted]
Dr. Carol Cash – ccash48@vt.edu or 804-836-3611

Should you have any questions or concerns about the study's conduct or your rights as a research subject, or need to report a research-related injury or event, you may contact the VT IRB Chair, Liesl Baum.

APPENDIX C

EMAIL TO TEACHERS

Teachers,

I am currently working on a research study as part of the requirements for a doctorate in Educational Leadership with Virginia Tech. Recently, [redacted] and the Institutional Review Board (IRB) have granted me permission to conduct research for my study: What School Factors Influence Teachers' Perceptions of Safety in Their Classrooms and Schools?

As part of the study, I am surveying teachers currently working in elementary and secondary schools to gather data to describe school factors that make teachers feel safe. When exploring teachers' feelings of safety within their schools and classrooms, four primary areas of teachers' work environments exist. Those four main areas are the physical environment in which teachers work, the relationships with colleagues, and the practices of administration and their adherence to division safety policies. The findings of this study will provide information to educational leaders regarding school building and classroom characteristics, teacher colleague relationships, and school leadership policy and practices that influence teachers' feelings of safety. Participation will involve the completion of an electronic survey. The survey consists of 20 Likert scale rating questions and 5 open-ended questions, should take about 10 minutes, and can be completed at any time before Friday, May 31, 2021.

Please know that survey data will be submitted anonymously. The only identifying variables included are gender, school level, and years in teaching. Specific school data will not be disaggregated.

Consent for participation in the study will be requested at the beginning of the electronic survey. Since this is the only identifiable data, it will be stored separately to ensure anonymity.

Thank you in advance for your time and consideration.

Sincerely,

Nate Bopp
Doctoral Candidate
Virginia Polytechnic Institute and State University

APPENDIX D

LETTER SEEKING STUDY APPROVAL

Dr. Anthony Brads

Superintendent, [redacted]

[redacted]

Re: Permission to conduct a research project

Dear Dr. Brads and Dr. Houck,

I am writing to request permission to conduct a research project at [redacted]. I am completing my Doctoral program at Virginia Tech and am in the process of writing my dissertation. The project is entitled *Factors that Influence Teacher Perceptions of Safety.*

I hope that you will allow me the opportunity to pursue all teachers from the school division to participate in a web-based survey. The purpose of the study is to identify factors that influence teacher perceptions of safety within the school environment. The researcher will explore connections between four areas of a teacher's experiences with their perceptions of safety. The four areas are physical characteristics of schools, relationships with colleagues, school administration practices, and the principal's adherence to division safety policies. The four research sub-questions are:

- What physical characteristics of school facilities contribute to feelings of safety for teachers?
- How do relationships with colleagues within the school environment influence perceptions of teacher safety?
- How do the practices of school administrators influence feelings of safety in teachers, and
- How does a principal's adherence to division safety policies influence teachers' feelings of safety?

With your approval, participants will complete the survey online within two weeks of the release date. This may be done on their own time at their convenience before the deadline. The survey should take approximately 10 minutes. The survey will consist of 25 questions. The survey results will be pooled for the dissertation and individual results of this study will remain confidential and anonymous.

There are no costs incurred by either the school or the individual participants.

Your approval is greatly appreciated. I have consulted school board policy JHDA in preparation for the process. I am happy to answer any questions or concerns that you may. Please contact me via email at [redacted] or by phone at extension [redacted].

If approved, kindly provide a brief written statement of approval on division letterhead so that I may begin my project in earnest. I appreciate your time and consideration.

Sincerely,

Nate Bopp,

[redacted]

[redacted]

Doctoral Candidate, Virginia Polytechnic University

APPENDIX E

DISTRICT APPROVAL

[redacted]

Office of the Division Superintendent

[redacted]

April 30, 2021

RE: Bopp, Nathan Dissertation Project Approval

Mr. Bopp:

As the designee of the Division Superintendent, I am granting your request to conduct your dissertation study within [redacted] entitled, "Factors that Influence Teachers Perceptions of Safety." I understand your study has been approved by the Institutional Review Board (IRB) of Virginia Polytechnic University and is referenced as IRB# 21-312.

It is my understanding that your intent is to distribute a twenty-five (25) question survey to all teachers employed by the School Division. You estimate the survey will take approximately ten (10) minutes to complete. No personally identifiable information of staff will be used in the study. Teachers will not identify their specific workplace, just the school level in which she/he works as either an elementary or secondary school. Participants will be informed that their involvement is voluntary and there are no anticipated risks or benefits to their participation in the survey.

The information gathered will certainly be of interest to the administration of [redacted] Public Schools. Best wishes for a successful dissertation study and defense.

Sincerely,

R Russell Houck

Russell Houck, Ed.D.
Executive Director of Student Services

APPENDIX F

IRB APPROVAL

VIRGINIA TECH

Division of Scholarly Integrity and Research Compliance
Institutional Review Board
North End Center, Suite 4120 (MC 0497)
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-3732
irb@vt.edu
http://www.research.vt.edu/sirc/hrpp

MEMORANDUM

DATE: May 3, 2021

TO: Carol S Cash, Nathan Patrick Bopp

FROM: Virginia Tech Institutional Review Board (FWA00000572)

PROTOCOL TITLE: Factors that Influence Teacher Perceptions of Safety

IRB NUMBER: **21-312**

Effective April 29, 2021, the Virginia Tech Human Research Protection Program (HRPP) determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104(d) category (ies) 2(i).

Ongoing IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit an amendment to the HRPP for a determination.

This exempt determination does not apply to any collaborating institution(s). The Virginia Tech HRPP and IRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

https://secure.research.vt.edu/external/irb/responsibilities.htm

(Please review responsibilities before beginning your research.)

PROTOCOL INFORMATION:

Determined As: **Exempt, under 45 CFR 46.104(d) category(ies) 2(i)**
Protocol Determination Date: **April 29, 2021**

ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

APPENDIX G

CITI PROGRAM

Completion Date 31-Aug-2020
Expiration Date 31-Aug-2023
Record ID 38037891

This is to certify that:

Nathan Bopp

Has completed the following CITI Program course:

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Social & Behavioral Research (Curriculum Group)
Social & Behavioral Research (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

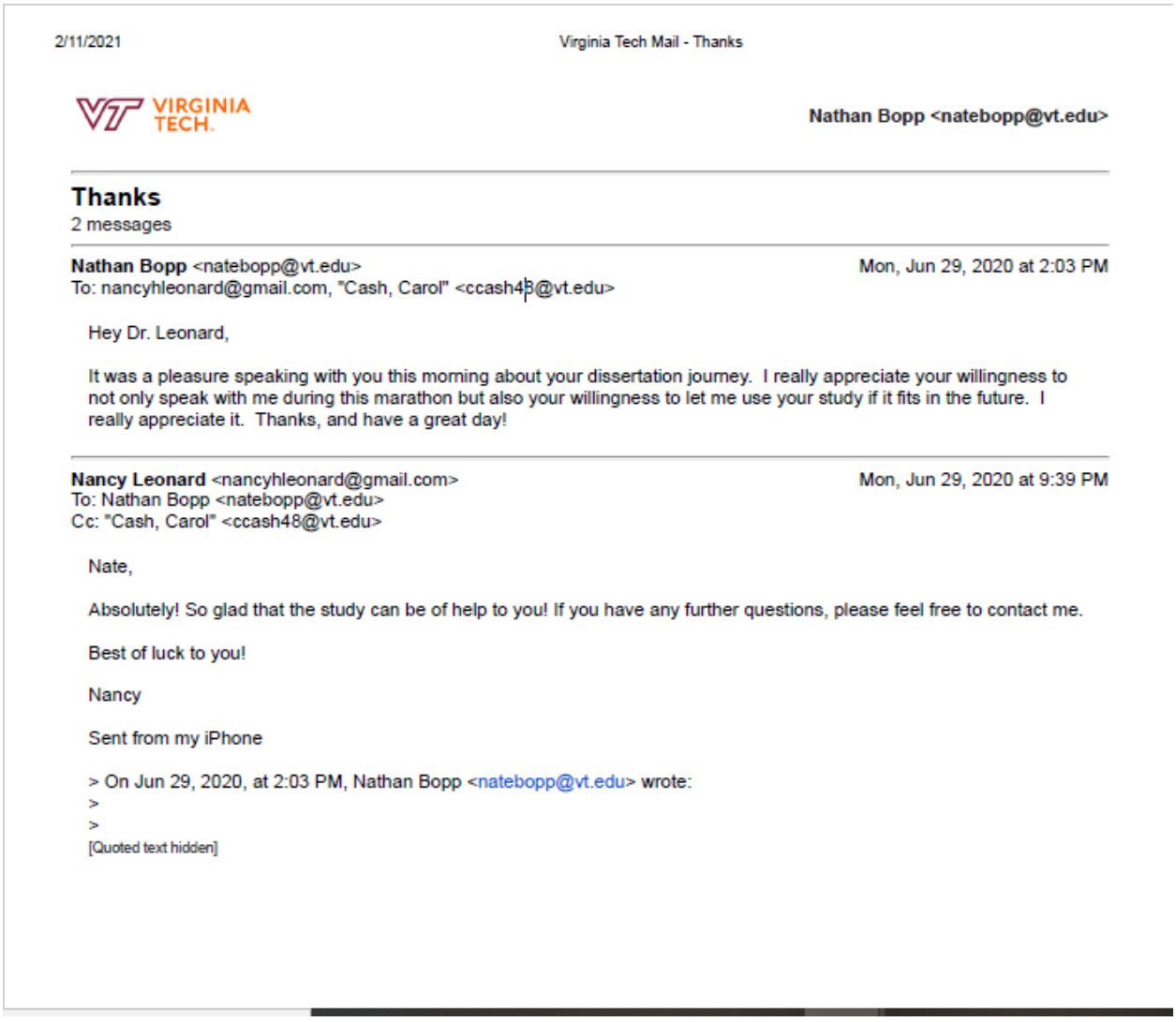
Virginia Polytechnic Institute & State University (Virginia Tech)

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?we6df34bd-29a1-47cd-bab8-5494f24e1b9b-38037891

APPENDIX H

PERMISSION TO REPLICATE STUDY



2/11/2021 Virginia Tech Mail - Thanks

VIRGINIA TECH

Nathan Bopp <natebopp@vt.edu>

Thanks
2 messages

Nathan Bopp <natebopp@vt.edu> Mon, Jun 29, 2020 at 2:03 PM
To: nancyhleonard@gmail.com, "Cash, Carol" <ccash48@vt.edu>

Hey Dr. Leonard,

It was a pleasure speaking with you this morning about your dissertation journey. I really appreciate your willingness to not only speak with me during this marathon but also your willingness to let me use your study if it fits in the future. I really appreciate it. Thanks, and have a great day!

Nancy Leonard <nancyhleonard@gmail.com> Mon, Jun 29, 2020 at 9:39 PM
To: Nathan Bopp <natebopp@vt.edu>
Cc: "Cash, Carol" <ccash48@vt.edu>

Nate,

Absolutely! So glad that the study can be of help to you! If you have any further questions, please feel free to contact me.

Best of luck to you!

Nancy

Sent from my iPhone

> On Jun 29, 2020, at 2:03 PM, Nathan Bopp <natebopp@vt.edu> wrote:
>
>
[Quoted text hidden]