

Kansas and Missouri Superintendents' Perceptions of Crisis Preparedness

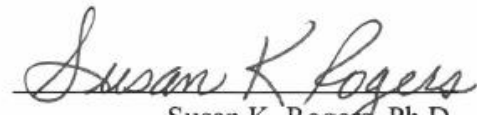
Janet E. Carter

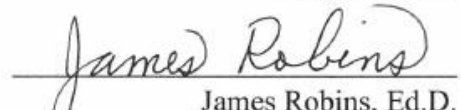
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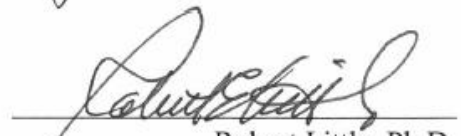
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Doctor of Education in Educational Leadership


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Abstract

The purpose of this study was to determine the perceptions of superintendents related to public-school crisis preparedness in the following seven areas: access and identification, internal security, safety preparedness development, safety preparedness student activities, safety preparedness first responder activities, levels of preparedness, and influences on efforts towards safety preparedness. Survey data was collected from superintendents of small, medium, and large public-school districts in Kansas and Missouri. Superintendents were asked to use a Likert rating scale to indicate levels of implementation, frequency, and preparedness with respect to the seven areas of crisis preparedness.

Results revealed that superintendents do perceive that crisis preparedness activities associated with access and identification and with internal security were present in district buildings during the 2016-2017 school year. However, superintendents do not perceive that the five other areas of crisis preparedness were present in their district buildings during the 2016-2017 school year. The results of the analysis indicated that superintendents' perceptions of crisis preparedness activities were lower in small districts than they were in medium and large districts, and medium districts were lower than large districts in the following areas: access and identification, internal security, safety preparedness development, safety preparedness first responder activities, and influences on efforts towards safety preparedness. The results of the analysis also revealed that superintendents' perceptions of crisis preparedness student activities for small districts were lower than the responses for medium and large districts. Responses for the levels of preparedness area revealed that there were no differences in superintendents' perceptions

when disaggregated by district size or state. The results of the analysis indicated that superintendents' perceptions of crisis preparedness activities associated with access and identification, internal security, and levels of preparedness were present in their district buildings during the 2016-2017 school year were affected by state. Kansas superintendents' perceptions were lower than Missouri superintendents. Superintendents' responses for the other crisis preparedness constructs were not affected by state.

Superintendents should consider the results of this study in public-school crisis preparedness planning. The current study provides a reference for superintendents' perceptions of the state of the seven areas of crisis preparedness examined in this study. The results may be helpful to superintendents when developing and implementing comprehensive crisis plans and security management with related training for all stakeholders.

Dedication

This dissertation is dedicated to my loving brother Aaron.

Acknowledgments

First, I would like to thank Dr. Susan Rogers, my advisor. Thank you for your patience and guidance through this process. With every unforeseen trial that life handed me during this process, there were times when I was not sure if I would finish, but your encouragement made the difference. Second, I would like to thank Dr. Margaret Waterman, my data advisor, classmate, and snack buddy. Thank you for your help, your positivity, and your always timely wit and humor. Also, I would like to take this opportunity to thank all of the superintendents in Kansas and Missouri who took time out of their busy schedules to complete the Superintendents' Perceptions of School Safety Survey as well as my doctoral committee, Dr. Jim Robins and Dr. Robert Little. Most importantly, I would like to thank the one from whom all my strength comes. I can do all things through Christ who strengthens me.

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Chapter 1

Introduction

Public schools used to be considered safe (Hemphill, 2008). Since the late 1990s, school safety has become a national concern, and a need to improve crisis preparedness in public schools exists in the United States (Brock, 2009). U.S. educational systems should continue to strengthen themselves in key areas such as crisis preparedness to accommodate the expected needs and concerns for the safety of children and those who work in educational settings. Public schools should be safe environments that help students become well-rounded individuals who can compete in an ever-changing world. Morrison and Furlong (1994) found that feeling safe in school is a basic need and there is a positive correlation between promoting a physically safe environment and academic achievement. For optimal learning to take place, students need a safe and secure learning environment and are less likely to drop out of school if that is the case (Davis & Davis, 2007).

The widely covered shootings at Columbine High School in 1999 and Sandy Hook Elementary in 2012 fueled the change in how crisis preparedness is viewed within educational settings (Tarallo, 2014). Many crises and hazards outside of school shootings and violence threaten school safety and require the attention of educational leaders to implement crisis preparedness plans (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2007). Educational leaders have long been aware that an optimal learning environment where everyone feels safe requires constant improvement and monitoring of crisis preparedness plans. According to Erickson (2013), confidence is

higher among school personnel when crisis preparedness plans that address several areas of school safety and security are in place.

Crises and hazards that school districts face vary across the country, and certain areas are prone to specific natural disasters such as hurricanes. In August 2005, Hurricane Katrina struck the Gulf Coast of the United States and took the lives of more than 1,300 people (United States Department of Homeland Security [DHS], Office of Inspector General, 2006) who were unprepared for the intense storms and massive flooding that are common in that region. Many public-school districts were also unprepared for this category five hurricane and had incomplete or outdated plans that did not cover natural disasters (Lee, Parker, Ward, Styron, & Shelley, 2008).

In May 2018, in response to explosive volcanic eruptions in Hawaii that spewed lava and plumes of ash and toxic gas into the air, approximately 700 people were forced to evacuate the area, and Big Island Public Schools were closed to prevent students from being exposed to spewing lava, dangerous toxins, and earthquakes that would follow (Stanglin, 2018). Each year, wildfires across the state of California threaten lives, cause devastating damage, and cause nearby public-school districts to cancel classes until the fire is contained and the air quality is improved. Being prepared for such hazards and natural disasters that may cause extended closures requires specific planning. According to the U.S. Department of Education, Emergency Response and Crisis Management Technical Assistance Center (2006), school districts preparation for addressing multi-hazard and public health emergencies and pandemics varies, and schools should have individualized crisis preparedness plans that consider population size, special needs, and medical assistance availability.

Background

District officials are concerned about the increasing incidences of unexpected hazards and natural disasters affecting our nation's schools as well as incidences of violence taking place in our nation's schools. The goal of most district officials is to take preventive measures and prepare well enough to decrease the likelihood of school violence from occurring in their districts. Receiving safety training, practicing drills, and involving local emergency first responders are the keys to school districts maintaining a steady state of preparedness during non-crisis times (Kano & Bourque, 2007).

The shooting at Columbine High School in 1999 brought national attention to school violence and changed the perceptions of school safety and crisis preparedness (Hemphill, 2008). The after effect of the tragedy is often referred to as the Columbine Effect (Muschert, Henry, Bracy, & Peguero, 2014). Because of the Columbine Effect, crisis management in public schools became a priority and has resulted in increased training for various crisis scenarios (Gainey, 2009; Muschert et al., 2014).

Combatting the cultural mindset that a crisis will not occur within certain communities creates a challenge for those school communities that inhibits progress. According to Hull (2000),

The potential for a school crisis exists every day classes are in session. A few may believe that these traumatic events will never happen in their schools. For school personnel, the real question is not will an emergency happen in my school, but when the emergency occurs, how prepared will we be to handle the situation?
(p. 68)

The threat of an unexpected school crisis prioritized the need for educational institutions to create crisis preparedness and emergency management plans; however, a U.S. General

Accountability Office (GAO, 2007) study results showed that many crisis plans did not include recommended safety practices thereby leaving educators unprepared to respond effectively to a school emergency.

Each year, more public-school districts fall prey to what could be preventable crises and hazards because of lack of crisis planning. On February 14, 2018, Marjory Stoneman Douglas High School in Parkland, Florida also fell victim to becoming one of the worst school shootings in America's history. A gunman was able to enter the high school and take the lives of 17 people, and once again educational leaders, students, parents, and the country as a whole were left wondering what more can be done to protect our schools from crises (Diaz, 2018). The DHS (2008) warned Americans ten years earlier:

Emergency preparedness is no longer the sole concern of earthquake prone Californians and those who live in the part of the country known as "Tornado Alley." For Americans, preparedness must now account for man-made disasters as well as natural ones. Knowing what to do during an emergency is an important part of being prepared and may make all the difference when seconds count. (p. 1)

Many public school districts in Kansas and Missouri have begun to invest a considerable amount of money in upgrading security on campuses to reduce the risk of violence and prepare for crises. Voter-approved bond money and money from state departments of education have been used for such improvements across each state in public school districts, such as Blue Valley, De Soto, Kansas City Kansas, Olathe, Topeka, and Shawnee Mission in Kansas and Park Hill and Liberty in Missouri (Stewart, 2018). Kansas and Missouri school districts made several upgrades to their security

systems by adding more layers of security, which included controlled entrances at all schools, secured entryways with buzzers, video doorbells, more security cameras, door lock systems, perimeter fencing, more school resource officers (SRO), and new exterior lighting at schools and buildings throughout the district (Mashek, 2018).

Statement of the Problem

The main purpose of schools is learning, and a safe learning environment is important for optimal learning. The perceptions that superintendents have regarding crisis preparedness are important to consider. If district officials such as superintendents perceive the buildings in their districts as unsafe work and learning environments, the perception can impact how the community perceives the quality of education offered within the district and how students learn (Hemphill, 2008).

Research suggests there is a lack of preparedness to handle crises among school leaders. By not considering the training of school leaders and their insight on the issue of crisis preparedness, a void has been left in the research (Hemphill, 2008). Examining the perceptions of superintendents in Kansas and Missouri about the status of their district's progress related to crisis preparedness could help districts develop practices that help to respond to a crisis effectively (Henriques, 2010).

The findings from a study by GAO (2007) revealed that safety issues throughout the nation's public schools such as armed intruders, pandemic flu, natural disasters, bomb threats, or suicide have forced public school districts to focus on security improvements and take steps to create and implement school crisis plans that address a wide range of crises. High profile tragedies have also raised awareness for the need for better security and crisis preparedness and prevention plans. While school districts can never guarantee

100% safety for students, faculty, and staff, being as prepared as possible saves lives. Despite increased efforts to improve the security and safety related to crisis preparedness, superintendents may feel their districts are still vulnerable to violent acts, hazards, and natural disasters and are not ready to address an unexpected crisis.

As society begins to view schools as potentially unsafe with each tragic incident, school leaders have begun to discuss how to keep schools safe. Developing better school crisis plans is one answer, but more needs to be done to address both real and perceived threats to school safety. Because workplace safety is important for students, faculty, and staff, it is also imperative that all stakeholder groups are trained to follow procedures during a crisis to effectively minimize injury and damage (Amann, 2013). Although districts in Kansas and Missouri have spent millions of dollars of the bond money set aside for security improvements, the perceptions of superintendents related to crisis preparedness are unknown.

Purpose of the Study

The purpose of this study was to determine the perceptions of Kansas and Missouri superintendents on crisis preparedness (access and identification, internal security, safety preparedness development, safety preparedness student activities, safety preparedness first responder activities, levels of preparedness, and influences on efforts toward safety preparedness). A second purpose was to determine whether the difference in perceptions was affected by district size (small, medium, and large). A third purpose was to determine whether the difference in perceptions was affected by state (Kansas or Missouri).

Significance of the Study

This study is significant because of the limited amount of existing research conducted on superintendents' perceptions of crisis preparedness. Crisis preparedness planning and training allow school districts to improve procedures and policies on how to protect students, faculty, and staff during a crisis (Smith, 2008). The greater demand for more security and better crisis preparedness plans justifies the need for more research on how such improvements affect the perceptions of superintendents within a district. Thus, districts might be able to determine if the costly and timely security improvements made a difference. Based on the feedback from superintendents in Kansas and Missouri, district officials could be guided on what areas are perceived more favorably and the areas in need of improvement.

Failing to look at school leaders and other school personnel for their insight on the issue of crisis preparedness has left a gap in the research (Hemphill, 2008). This study attempts to address this void by surveying superintendents in Kansas and Missouri about their perceptions of crisis preparedness and how prepared their districts are. Surveying superintendents to understand their views on this topic is an effort to help develop solutions to the current inadequate state of crisis preparedness in public schools. Understanding what superintendents believe about the safety of their districts could help districts develop policies and safety procedures to address these problems that directly affect students and school personnel (Henriques, 2010). The results of this study could benefit school districts throughout the nation as providing safe and secure schools should be a focus of all districts in an unpredictable world of violence and natural disasters on school campuses.

It is increasingly important for district and building administrators to acquire up-to-date training in crisis planning preparedness. Perhaps the results of this quantitative study might decrease the potential risks of school violence, the prolonged negative effects of natural disasters on schools, and improve future crisis preparedness training for superintendents and other district employees. The findings from the study could also be evaluated to make a comprehensive report about the existing conditions of safety preparedness based on superintendents' perceptions and make recommendations to develop best practices in Kansas and Missouri public school districts.

Delimitations

Lunenburg and Irby (2008) defined delimitations as “self-imposed boundaries set by the researcher on the purpose and scope of the study” (p.13). This study focused on superintendents' perceptions of crisis-preparedness in Kansas and Missouri public school districts during the 2016-2017 school year and had the following delimitations:

1. Superintendents in Kansas and Missouri were asked to complete a survey about their district's crisis preparedness voluntarily.
2. The period of data collection occurred in June 2017
3. The study involved the use of an online survey instrument for data collection.

Assumptions

According to Lunenburg and Irby (2008), “Assumptions are positions, premises, and propositions that are accepted as operational for purposes for purposes of the research” (p.135). The assumptions made concerning this research study are below:

1. Superintendents who participated in the online survey had sufficient knowledge of the topic and understood the items on the survey.

2. Superintendents who participated in the online survey responded to each item accurately and honestly.

Research Questions

Johnson and Christensen (2008) defined a research question as “a statement of the specific question(s) to which the researcher seeks an answer” (p. 78). The following research questions were addressed to determine the perceptions of Kansas and Missouri superintendents on crisis preparedness and whether district size and state affected those perceptions:

RQ1. To what extent do superintendents perceive that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year?

RQ2. To what extent are superintendents’ perceptions that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year affected by district size and state?

RQ3. To what extent do superintendents perceive that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year?

RQ4. To what extent are superintendents’ perceptions that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year affected by district size and state?

RQ5. To what extent do superintendents perceive that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year?

RQ6. To what extent are superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year affected by district size and state?

RQ7. To what extent do superintendents perceive that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year?

RQ8. To what extent are superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year affected by district size and state?

RQ9. To what extent do superintendents perceive that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year?

RQ10. To what extent are superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year affected by district size and state?

RQ11. To what extent do superintendents perceive that their district was prepared for a crisis during the 2016-2017 school year?

RQ12. To what extent are superintendents' perceptions that their district was prepared for a crisis during the 2016-2017 school year affected by district size and state?

RQ13. To what extent do superintendents perceive that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year?

RQ14. To what extent are superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year affected by district size and state?

Definition of Terms

Roberts (2010) stated that the definition of terms section of a dissertation includes terms used that “do not have a commonly known meaning or that have the possibility of being misunderstood” (p. 139). To avoid confusion, the terms relevant to this study are defined below.

Crisis. According to Gainey (2009), a crisis is an event that has the potential to endanger an organization's reputation, profitability, and survival.

Crisis interventions. According to Poal (1990), crisis interventions are a planned set of techniques resulting from established standards of crisis theory, designed to address acts of natural and human-made disasters.

Crisis preparedness. The U. S. Department of Homeland Security (2012) indicated that crisis preparedness is a continuous cycle of planning for a potential crisis.

Crisis preparedness plans. Kano and Ramirez (2007) defined crisis preparedness plans as documents and procedures used to manage events in a way that prevents or minimizes physical and psychological trauma to students and staff, as well as surrounding communities.

Crisis management. As defined by Gainey (2009), crisis management is a set of strategies for preparing and addressing a crisis event to prevent or modify the effect the crisis has on an organization.

Risk assessment. According to Kansas Adjutant General's Department, Kansas Division of Emergency Management (2017), a risk assessment is the "process of logically measuring the loss of life, personal injury, economic impact, and property damage by assessing the vulnerability of people, buildings, and infrastructure to potential hazards" (p. 20).

Organization of the Study

Included in Chapter 1 were the background, the statement of the problem, the purpose of the study, the significance of the study, delimitations, assumptions, research questions, the definition of terms, and an organization of the study. In Chapter 2, the theoretical framework, historical perspective of crisis preparedness, crisis preparedness plans, evolution of regulations for school crisis preparedness, and perceptions of crisis preparedness are reviewed. The methodology utilized in this study is presented in Chapter 3. Chapter 4 includes a presentation of the descriptive statistics and the results of the hypothesis testing. Chapter 5 includes a study summary, findings related to the literature, and the conclusions.

Chapter 2

Review of the Literature

Being as prepared as possible for a crisis is a major concern for district leaders in public schools and for those who develop guidelines and standards for crisis preparedness plans. Part of the responsibility of district leaders is to make maintenance of a safe environment for students a priority, which contributes to an overall positive learning environment for the students entrusted to their care. Crisis preparedness in public schools is both a legal requirement and an ethical obligation. Crisis preparedness is also necessary to maintain an environment conducive to student learning (Dorm 2006; Mayer & Furlong, 2010; Nickerson & Martens, 2008).

This chapter contains a review of the literature related to school crisis preparedness. The review includes the theoretical framework, historical perspective of crisis preparedness, crisis preparedness plans, and the evolution of regulations for school crisis preparedness. An examination of the different perceptions of crisis preparedness as they relate to different groups of stakeholders such as students, faculty, staff, and superintendents is also included in this chapter.

Theoretical Framework

Maslow's (1943) hierarchy of needs is part of the theoretical framework referenced in this study (see Figure 1). Maslow (1943) studied the impact of the basic physical, emotional, social, and intellectual needs on an individual's growth and sense of personal fulfillment. Maslow proposed that there are five fundamental needs all human have and must have met so that an individual reaches full potential. The needs are listed in a hierarchical pyramid which starts with the most basic need and moves upward

towards self-actualization, which is when the individual reaches the highest growth level and full potential. According to Maslow (1943), “The need for safety is seen as an active and dominant mobilizer of the organism’s resources only in emergencies, e.g., war, disease, natural catastrophes, crime waves, societal disorganization, neurosis, brain injury, chronically bad situation” (p. 377).



Figure 1. Maslow’s hierarchy of needs. Adapted from “Maslow’s Hierarchy of Needs,” by S. A. McLeod, 2014, 2014. Retrieved from <https://www.simplypsychology.org/maslow.html>

Maslow’s (1943) hierarchy of needs is relevant to the field of education because of the basic human need for safety and how school safety affects learning. According to Maslow (1943), the basic need for safety (security, stability, freedom from fear) must be met before addressing higher needs in the pyramid. If public school districts are not able to provide safe environments for students and employees through proper crisis planning, then by applying Maslow’s theory to education settings, one could infer that teachers,

administrators, and other employee groups need to feel safe in order to be effective at work and students need to feel safe in order to reach their full academic potential.

Cognitive adaptation theory (CAT) is a theory that explains how one adjusts psychologically to threatening events. According to Taylor (1983), the mind is capable of adapting to and finding meaning for stressful or traumatic events. The three main components of CAT that help those who have experienced a traumatic event handle it more healthily and adapt afterward are 1) finding meaning for the event, 2) achieving a sense of mastery over the event, and 3) redefining feelings of self-esteem after the event. CAT can be applied to various traumatic events including experiencing an unexpected crisis in a school setting.

Another theory employed in this study is Marzano's levels of school effectiveness. Marzano (2014) concluded that there are five levels of school effectiveness: 1) safe and orderly environment, 2) instructional framework, 3) guaranteed and viable curriculum, 4) standards-referenced system of reporting student progress, 5) competency-based system. Marzano explained how leading indicators for level 1 must be met before other levels are reached or "all other activities will suffer" (p. 13). Referring to level 1, once school leaders have established and implemented safety procedures that will minimize the impact of disrupting the school day, the school environment can be considered safe and orderly and demonstrated through a climate of respect and shared responsibility (Riley, 2012). Leading indicators for level 1 related to crisis preparedness include the following: 1) students, parents, faculty and staff perceive the school environment as safe and orderly, 2) faculty and staff know the emergency management procedures and how to implement them, 3) evidence of practicing emergency procedures

for specific incidents is available, 4) evidence of updates to emergency management plans available, 5) the school coordinates with local law enforcement agencies regarding school safety issues, 6) the school engages parents and community regarding issues of school safety (Marzano, 2012).

Bandura (1993) stated that he believed that self-efficacy, also called self-belief or self-confidence, played a major role in determining one's success. Bandura's theory of self-efficacy explains that self-efficacy refers to one's belief and confidence in one's ability to influence events and control how one reacts. Bandura (1993) believed self-efficacy impacts both behavior and performance and has four sources: mastery of experiences, vicarious experiences, verbal persuasion, and emotional and physiological states. Mastery of experiences is attained through having repeated success in mastering a task thus building on one's competency in that area (Bandura 1993). Vicarious experiences, often referred to as modeling, is when one can improve their own performance by observing others perform activities successfully. The third source of self-efficacy is verbal persuasion, also referred to as social persuasion. Verbal persuasion is when people are coached through performance feedback and suggestion into believing that they can cope with situations successfully. Lastly, the emotional and physiological state is the fourth source of self-efficacy and is when one's emotional and physiological state has a direct impact on one's self-efficacy and ability to perform a task successfully (Bandura, 1993). Self-efficacy related to crisis preparedness increases when written crisis plans are in place, and students and staff have opportunities to practice safety strategies and gain competency in preparing for and responding to a possible crisis event (Gainey, 2009).

Epstein's theory of overlapping spheres of influence is a theoretical framework which focuses on the foundation of healthy partnerships needed for student learning to occur. According to Epstein (2018), the overlapping spheres of influence theory is a supportive partnership between schools, families and the community that positively impacts students' self-esteem, feelings of safety and attitudes toward learning. It is presented as three distinct but overlapping spheres that interlock in the middle. As shown in Figure 2, the internal overlap ideally represents students being supported by their family, school, and community.

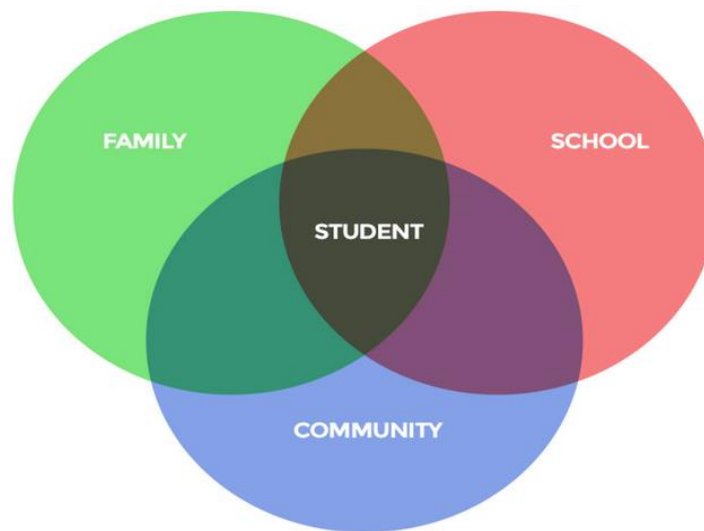


Figure 2. Epstein's overlapping spheres of influence. Adapted from *School, family, and community partnerships: Preparing educators and improving schools* (2nd ed.) by J. L. Epstein, 2018. New York, NY: Routledge.

Epstein (2018) noted that strong partnerships between family, school, and community create a foundation of an environment that helps provide a safe learning environment for students to help them be successful in school and life.

Historical Perspective of Crisis Preparedness

To understand the foundation of school safety, it is imperative to review strategies that have shaped the framework of and need for crises preparedness and planning in public schools. According to Caplan (1964), “a crisis is shaped by the context in which it occurs: the type of event or situation contributing to or triggering the crisis, where and when the crisis occurs, and the vulnerability of those involved” (p. 53). Johnson (2000) stated that “crises in school settings threaten the comfort, stability, and secure environment familiar to students” (p. 3). Depending on the severity of the trauma, Johnson (2000) purported that crises such as school shootings and natural disasters could leave students emotionally vulnerable, which is why organized steps are taken in advance to prepare for potential threats. These steps almost always typically include the implementation of crisis plans and organizing and training school crisis teams to make sure crisis and safety plans are in place.

School-based crisis preparedness and crisis intervention planning have seen tremendous growth mostly due to necessity, especially in the case of fire. In 1851, in Greenwich Avenue School in New York City, 40 school children were killed trying to escape from a fire that was a false alarm. Because escape routes were not marked over exits like they are today, students had not been trained on how to respond in the case a fire (Heath, Ryan, Dean, & Bingham, 2007). For this reason, fire drills were implemented as a strategy to prevent unnecessary death, which included practice on how to safely evacuate the building (Golway, 2002).

According to Teague (2009), establishing mandated practice for fire drills was an early attempt for schools coming to terms with the need to be held accountable for

students' safety and to plan for crises. Over the years, fire drills became more common but how and when schools executed the drills was not made clear until years later. In 1961, each state's department of education posted specifics regarding fire drills and fire codes (Teague, 2009). Fire exits and escape routes are posted in every classroom and schools are required to practice fire drills monthly during the school year. Monthly drills have resulted in less likelihood for student injuries and more likelihood for students to respond and exit the building in an orderly fashion.

Another school safety issue that impacted school crisis preparedness was the 1950's Civil Defense Duck and Cover Campaign. During the early 1950s, public school students were instructed on how to protect themselves in the case of nuclear war. The threat of nuclear war from Russia prompted the Federal Civil Defense Administration and Department of Education to implement duck and cover drills (U.S. Office of Civil Defense & Archer Productions, 1951). The drills focused on preparing students to protect themselves from debris and radiation burns (Hawn & Ion, 2006). Similar drills are still practiced today in schools threatened by earthquakes and tornadoes (Federal Emergency Management Agency [FEMA], 2005).

For years, traditional school crisis preparedness plans only focused on fire drills and tornado drills, many times omitting other dangers such as school shootings. Since 9/11, schools have begun to include more training for terrorism and armed intruders (Delisio, 2006). It was not until the late 1990s that public school districts began to take an even more serious look at how to proactively protect students and faculty from other threats to safety. Because of high-profile school shootings, more money and time was invested in creating crisis plans that not only addressed fire and natural disasters but also

other serious safety threats such as bombings, terrorism, armed intruders, and medical emergencies.

Not only did fires present a concern for public schools and the community, but in 1995, after the Oklahoma City bombing, schools began to take the possibility of bomb threats more seriously. The Oklahoma City bombing is considered one of the worst acts of domestic terrorism in the United States. Because the government building that McVeigh targeted housed a daycare for government employees, communities across the country were immediately left in shock as news began to spread that some of the youngest victims were those in the daycare. The bombing also sparked an interest in public school districts to secure their campuses in the case of announced and unannounced bomb threats and acts of terrorism and to create better crisis preparedness plans to address school violence a more extensive array of threats to school safety (CNN, 2018).

Columbine heightened the awareness of the prevalence of school violence, the possibility of armed intruders entering schools, and the need for school crises preparedness on public school campuses throughout the nation, which prompted a national debate on school safety (Aspiranti, Pelchar, McCleary, Bain, & Foster, 2011). On April 20, 1999, without warning, Dylan Klebold and Ryan Harris detonated two pipe bombs to distract police before entering their school armed with knives, CO2 bombs, a rifle, 12 gauge double-barrel shotgun, 9 mm semi-automatic handgun, and 9 mm bullets, shells, and clips. Before committing suicide, they took the lives of 13 people and wounded more than 20. No one could stop them because sufficient crisis plans that addressed how to respond effectively to an armed intruder were not in place.

After Columbine, school districts either rushed to put together a crisis preparedness plan or reevaluated an old crisis plan. According to Gulen (2010), “over the past three decades, a safe and secure learning environment has become a key issue in the United States, especially after the school shootings of the 1990s” (p. 1). School safety and practice safety drills became a priority and were discussed more at school meetings, and more money and time were also committed to improving school security through hiring and training of faculty and trained staff such as SROs, who were trained law enforcement officers responsible for safety and crime prevention. SROs were initially placed in public-schools full time to help improve relationships between students and police officers (McNicholas, 2008). SROs can be found in most schools and “work with all grade levels; more are assigned to high schools than elementary and middle schools” (Rippetoe, 2009, p. 30). Because the perceived threat of danger is greater at high schools, Calefati (2009) indicated that the Columbine tragedy also changed the role of SROs to focus on school security. Calefati (2009) reported, “since these tragedies, lines of communication have since been established by schools and communities that 1) allow students to report alarming behavior; 2) increase and update security systems; and 3) develop safe school plans, or crisis plans” (p. 2).

Columbine should have been the wake-up call from complacency to all public-school districts to dedicate more resources and time to improving security. Unfortunately, most public-school districts and communities needed more than one wake-up call for school security and crisis preparedness to remain at the forefront of the public’s short and desensitized attention span. Sandy Hook had a buzzer security system in place for visitors to use and sign in before they entered the building. Although security

cameras were installed, on December 14, 2012, Adam Lanza entered Sandy Hook and killed 20 first graders, as well as six staff members (CNN, 2012).

Even though both Columbine and Sandy Hook were not prepared for the scrutiny that would surround them, the public scrutiny of these high-profile violent shooter attacks was crucial to the discussion on overall crisis preparedness for a variety of safety and crisis situations and not just school violence. Because the victims of the Sandy Hook shooting were so young, the public's response was more intense (Velez, 2013), and many districts increased their security measures after this tragedy (Jones, 2013). Columbine raised the need for discussions about securing school buildings and improving crisis preparedness plans, and Sandy Hook reinforced the need for a school crisis plan and reminded public school districts that no matter how many security and prevention measures are in place and how young students are, it could still happen. Realizing that preventing a crisis is as difficult as preparing for one, public schools still need to take every precaution in improving campus security. Paying attention to how schools are built, how the entrances to buildings are designed, and installing security features such as cameras and lighting can reduce incidents of school violence (Vogel, Horwitz, & Fahrenthold, 2012).

In the spring of 2009, the United States experienced a medical emergency as a result of a novel strain of the influenza A/H1N1 virus, which was commonly referred to as swine flu. In Missouri, there were 1,523 confirmed cases of swine flu with 17 confirmed deaths (Centers for Disease Control and Prevention, [CDC], 2019d). Kansas reported 1,209 cases with 29 confirmed deaths (CDC, 2019d). In January 2010, nearly 14,000 deaths were attributed to the virus worldwide with over 2,000 confirmed deaths in

the U.S. (CDC, 2019d). Many schools were forced to close and undergo extensive cleaning to decrease the likelihood of the virus spreading and before allowing students to return. In the case of pandemic influenza, which is commonly referred to as Influenza A virus, several new guidelines were recommended by the CDC (2019a) that outline nonpharmaceutical interventions (NPIs), which are preventive measures that communities can take to help slow down the spread of contagious respiratory virus infections.

Historically, the 20th century has seen three pandemics of influenza. In 1906, influenza pandemic caused about 34,000 U.S. death and 700,000 deaths worldwide. Twelve years later in 1918, influenza claimed at least 500,000 deaths in the U.S. and up to 50 million deaths worldwide (CDC, 2019b). Nearly 40 years later in 1957, influenza was the cause of an estimated 70,000 deaths in the U.S. and 1-2 million deaths worldwide (CDC, 2019c). Responding to the spread of NPIs can be difficult because they spread easily from person to person and often impact an entire school community before it takes on what could be perceived as a pandemic. Unlike natural disasters such as tornados, predicting when and where a pandemic may hit is difficult, but through crises preparedness planning, communities can work towards preventing the spread of them.

Crisis Preparedness Plans

Most public-school districts have crisis preparedness plans, but they are inconsistent across schools, districts, and states, and little research has been done to study the perceptions of school leaders responsible for implementing their districts crisis plans (Alba & Gable, 2011). According to Gainey (2009), an inability to effectively respond to a crisis makes it difficult for students and employees to be safe and for the district to

become a crisis-ready organization. Superintendents are recommended to take the following steps in crisis preparedness (Gainey, 2009).

1. Ensure crisis plans have executive support for the integration of crisis management linking to the district's strategic planning process.
2. Develop and update the crisis management plan.
3. Identify potential threats or weaknesses within the organization using vulnerability audits or potential threats or weaknesses outside of the organization that could develop into a crisis in the future.
4. Assemble and train crisis-management teams to lead planning efforts for the district's response in an actual crisis.
5. Develop a healthy relationship with the media.
6. Build relations with key stakeholders in the community.
7. Pay close attention to the role of leadership in a crisis. (p. 273)

Due to ongoing safety threats that face public schools, crisis prevention plans and management practices have emerged as necessary steps to improve overall school security. Preparing schools to respond quickly and effectively during a crisis can reduce injuries and prevent loss of lives. Preparation is critical to ensuring the safety of the schools, students, faculty, and staff. Districts should be prepared to react to such possible crises before they occur, so school is not needlessly disrupted.

Crises in school settings threaten the comfort, stability, and secure environment familiar to students. Some crises, such as school shootings or natural disasters, potentially involve hundreds, even thousands of students, leaving them vulnerable to threat, loss, and traumatic stimulus. Furthermore, if a school crisis is not

quickly contained or properly managed, chaos ensues, making it difficult for the limited number of adults to manage and bring the situation under control. (Heath et al., 2007)

One of the first steps to preparing for crises, improving school security, and managing a school crisis, is to form a crisis team. According to Robbins and Alvy (2004), all districts should have a crisis team in place in which safety protocols are established and practiced regularly. After the safety team has surveyed the exterior and interior campus, a safety risk assessment also known as a safety audit is critical to the planning process and must be completed to ensure that every effort is made to identify structural and systematic weaknesses in every area of the crisis preparedness plans.

School officials are responsible for adequately preparing staff for emergencies by requiring training and developing safety plans that address various crises (Robbins & Alvy, 2004). Districts are responsible for developing comprehensive crisis plans that address how to respond to different emergencies (Blaydes, 2004). According to Collins (2007), most state education departments created and implemented crisis plans in the 1990s.

All districts and schools need a crisis team. One of the key functions of this team is to identify the types of crises that may occur in the district and school and define what events would activate the plan. The team may consider many factors such as the school's ability to handle a situation with internal resources and its experience in responding to past events. (U.S. Department of Education [DOE], 2007)

In 2007, the DOE published a guide for public schools called *Practical Information on Crisis Planning*. Outlined in this guide are the following four phases of crisis planning (see Figure 3) and a minimum of the following areas and responses to various crises and hazards: 1) fire; 2) natural disasters; 3) armed intruder; 4) hostages; 5) bomb threats or incidents; 6) chemical, biological, or radiological threats or incidents; 7) suicide threat or incident; 8) terrorist threat or attack; and 9) pandemic flu.

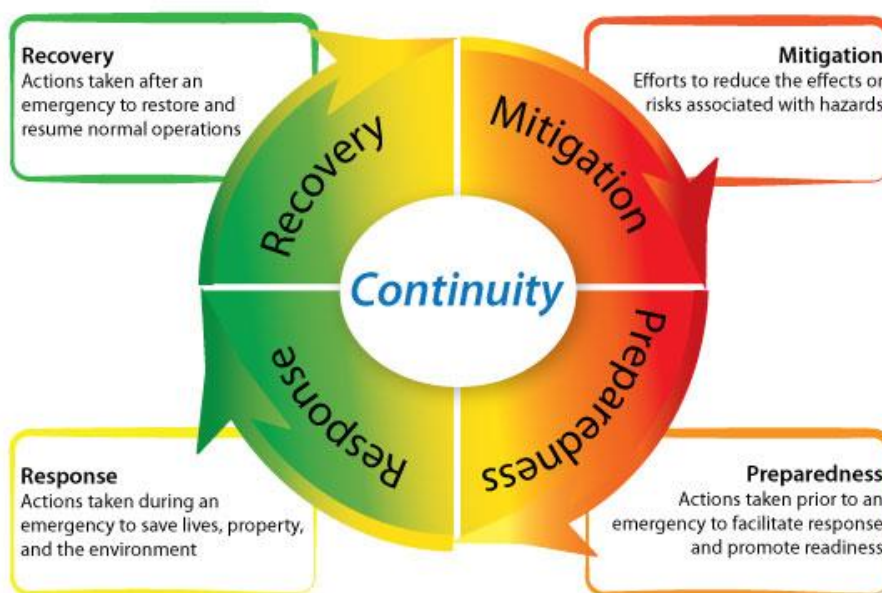


Figure 3. The Sequence of Crisis Management. Adapted from “Practical information on crisis planning: A guide for schools and communities,” The U.S. Department of Education, Office of Safe and Drug-Free Schools, 2007, p. 1-7. Retrieved from <https://www2.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf>

Mitigation and Prevention. The first phase of crisis management and crisis preparedness planning includes mitigation and prevention. FEMA (2002) defined mitigation as an action taken that reduces or eliminates the long-term risk of damage or injury in a crisis. This phase is ongoing and addresses a school’s range of hazards caused by both nature and people. According to Dorm (2006), during mitigation and prevention,

school districts should focus on how crisis response teams should effectively prepare for responding to a crisis, which has become one of the key responsibilities of school leaders. Many schools did not have a plan regarding how to prepare to respond to a crisis, and few practiced mitigation and prevention regularly before well-documented school tragedies from the late 1990s. Schools and districts without a plan are at a higher risk of not recovering from an incident (Dorm, 2006).

During the mitigation and prevention phase, it is recommended that the district take precautionary measures by identifying dangers in a school. During the inventory process, emphasis is placed on making changes that help minimize injury and property damages (Dorm, 2006). Conducting safety or vulnerability risk assessments of each school allows for policies, expectations, procedures, and planning to be tailored to each school and hazard (Stueve et al., 2006).

Preparedness. The second phase of crisis planning is preparedness. Stakeholders are often overlooked during the mitigation and prevention phase (Zdziarski, 2006). However, during the planning stage of the preparedness phase, it is important to identify and involve stakeholders and understand that developing a crisis plan takes time. It is common for districts to solicit the feedback from the parents about what they think of current safety practices and procedure for communicating with them during a crisis. Community input is useful during the preparedness phase of planning because it facilitates the creation of relationships with those who will be first responders in the event of a crisis.

To be prepared for a crisis, schools must create plans to be implemented in the school community. During this process, the stakeholders' roles and responsibilities must

be defined. Working with law enforcement officers and emergency responders is critical to determining what crisis the plan will address. Community stakeholders' participation is vital to the success of keeping schools safe (Rosiak, 2009). In the preparedness phase, it is also important to develop methods for communicating with others including media. Procedures must be established to account for staff, students, families, first responders, and law enforcement during the crisis. It is widely believed that Columbine lacked many of these fundamental communication procedures that could have helped ease the confusion and frustration of families searching for family members (Cullen, 2009; Nimmo, Scott, & Rabey, 2008). Although school districts are not required to use a communication system during a crisis, adopting and being trained how to use the same nationally recognized command systems as most law enforcement and fire department agencies could be useful when determining the safest and most effective means of communication during a crisis (Hammond, 2011).

Response. The response phase is the third phase of crisis management. In this phase, the crisis preparedness plan is put into action. The response to a crisis should be based on what the crisis team outlined in the planning phase and will guide the team during a crisis. Based on the plan, the team should be able to determine the most appropriate and effective response to each crisis (DOE, 2007).

Recovery. The final phase of crisis management is recovery. According to the DOE (2007), "the goal of recovery is to return to learning and restore the infrastructure of the school as quickly as possible" (p. 5-1). After a crisis, schools should take as much time as needed to address any emotional impact the crisis may have caused. During this phase, it is highly recommended that trained professional personnel focus on assessing

the emotional needs of students, staff, responders, and others impacted by the crisis. The crisis intervention team (CIT) could be a valuable resource during the recovery phase. The CIT is usually composed of district or school level officials trained to assist during the recovery. It is also common for districts to bring in trained individuals outside of the district to assist after a crisis and coordinate activities within the school and community (DOE, 2007).

Because the four stages of crisis planning are cyclical, each step in the planning phase needs to be evaluated after each incident. Members on the crisis planning team should reflect and take note on what worked, what did not work and how operations could improve? Afterward, the crisis plan should be updated to reflect new learning on what best practices.

Evolution of Regulations for School Crisis Preparedness

During the Clinton administration, the Goals 2000: Educate America Act (DOE, 1994) was promoted to improve public education in eight different areas. One of the goals focused on school safety. Schools were to be free of drugs and violence by the year 2000, and discipline would be harsher to improve the school environment (GovTrack.us., 2019a).

The Gun-Free Schools Act of 1994 impacted students the most. This act outlined the consequences of specific disciplinary actions for students who were in possession of a gun on school grounds (Skiba, 2000). Before the passage of this legislation, schools could make decisions on a case-by-case review of each situation; under The Gun-Free Schools Act, an expulsion for a minimum of one year could be required if students possessed a gun on while on school property. To get schools and states to comply with

the new federal legislation, states that were not in compliance would risk losing federal school funding, which ultimately was a major factor in schools taking precautions to ensure safety (Bailey, 2006). The America's Improving Schools Act of 1994, of which The Gun-Free Schools Act was a part, not only threatened schools with the risk of losing funding, but it also required districts to report students to the criminal justice system for juveniles (GovTrack.us., 2019b).

After another school shooting in 1998 at Thurston High School, the DOE at the request of President Clinton, published *Early Warning, Timely Response: A Guide to Safe Schools* (as cited in Dwyer, Osher, & Warger, 1998). The publication assisted with identifying the warning signs of troubled youth and how to respond effectively to prevent school violence. By identifying early warning signs, school leaders were able to predict and prevent future acts of violence.

Focused on school accountability, in 2001 President Bush introduced a comprehensive educational reform initiative, NCLB (2002), which included initiatives related to school safety. NCLB mandated all states have crisis plans in place and defined persistently dangerous schools, which allowed for the crime statistics to be reported and tracked (Dinkes, Kemp, Baum, & Snyder, 2009). The goal was to guarantee that each child had the right to learn in a safe setting conducive to learning. Additionally, NCLB (2002) encouraged laws to be aggressively enforced, required states to report on school safety to the public, protected teachers so they can teach and maintain order, anticipated the potential for violence in schools, and provided a mechanism for a student to leave chronically dangerous schools. NCLB mandated that school districts use federal school safety funding to create a multi-hazard emergency plan to keep schools safe and drug

free. The plans must incorporate discipline, security, and prevention policies and a crisis management plan for crises that occur on school grounds (NCLB, 2002).

Perceptions of Crisis Preparedness

The public's perception of school safety directly impacts crisis preparedness planning. After every school tragedy, the public's awareness of the vulnerability of schools becomes heightened. The media's coverage personalizes the victims and enables others to empathize (Donohue, Schiraldi, & Ziedenberg, 1999). Because the public expects children to be safe in schools, it is especially difficult to accept the loss of children. Afterward, the public is often left with a decreased sense of security and the uncomfortable realization that every community is at risk of becoming the next Columbine (Peterson & Skiba, 2001).

In 2004, in response to an international terrorist attack on a school in Russia where children and adults were taken hostage and 344 killed, the DOE outlined, in a letter addressed to school administrators, recommendations for updating security in within U.S. schools (DOE, 2004). Because of the public's fear, school safety has become a priority, and school crisis preparedness has become a necessity. With each school tragedy, it appears the public's resolve is strengthened to commit to making school safer for everyone.

Session (2000) conducted a quantitative study that examined 594 teacher perceptions of school safety from 34 schools in Mississippi. Session's (2000) major findings included that teachers did not regularly receive safety training, the training offered during in-service was not adequate, and current training was needed on multiple safety issues. Session (2000) reported that nearly half of the teachers reported not

receiving training and over 90% “perceived a need for comprehensive school violence training for all teachers” (p. 63). Session (2000) also found that teachers who taught in urban areas did not feel as prepared to act in an emergency as teachers who taught in middle and upper socioeconomic areas.

Peterson (2007) examined school violence from a teachers’ perspective in a quantitative study in which 208 teachers were surveyed from randomly selected public schools in the United States. Teachers’ perceptions are important to consider because teachers who view their work environments as unsafe directly impact how they relate to students and how their own ability to be effective in the classroom (Hemphill, 2008). Peterson (2007) looked at how school violence impacted teachers based on the number of years they had taught. Participants completed an online survey in which they were asked whether they believed the role of teachers had changed since they began teaching. Peterson (2007) found that the majority of participants responded that they believed the role of the classroom teacher has changed, and the percentage was higher for teachers with more teaching experience. Results also revealed that the majority of teachers agreed that school violence has impacted the role of the classroom teacher and that there are more discipline problems and assaults on teachers.

Graham (2009) conducted a quantitative study to determine how 298 teachers and administrators in public schools in Texas perceived emergency preparedness. Overall Graham found that teachers and administrators perceived that their campuses were prepared for all types of crises, emergency operations, and emergency response procedures. However, Graham found that teachers and administrators at middle schools and high schools perceived higher levels of preparedness than those in elementary

schools. Graham also noted differences in levels of perceived preparedness that existed among teachers and administrators. Administrators were found to indicate higher levels of perceived preparedness and higher levels of commitment to improving crises preparedness than teachers were.

Swiontek (2009) conducted a quantitative study in which he examined 120 superintendents' perspectives of emergency preparedness of public schools in North Dakota. The purpose of the study was to determine whether public schools in North Dakota had comprehensive emergency response plans in place, if districts were prepared to respond to various types of crises, and if the North Dakota LEAD Center's emergency response planning program, which trains school leaders affected emergency preparedness was effective and whether school district preparedness for emergencies was dependent on the size of the district. Swiontek (2009) found that there was not a significant difference among emergency preparedness for the size of the school, and although most public-school districts had an emergency response plan, few superintendents indicated that those plans were comprehensive for responding to a wide variety of crises.

Henriques (2010) conducted a correlational study in which she examined the perceptions of school violence among school personnel in relation to suspension rates. She looked at responses of the 40 participants who completed the Survey of School Violence and Preparedness. Henriques (2010) found that factors such as gender, experience, job classification, age, and ethnicity of students did not affect incidents of school violence and that the suspension rates were directly related to the discipline administered. Schools with the lowest suspension rates tended to have stricter consequences for discipline issues and schools with the highest suspension rate had lower

discipline measures administered. Additionally, teachers viewed school as safer than non-teaching personnel, which could be attributed to teachers knowing the students better thereby creating a stronger rapport with them.

Church (2011) performed a qualitative study that examined the perceptions of six K-6 teachers from schools located in a large metropolitan area on school violence. The results of the study included findings on prevention and intervention methods in the case studies of the participants interviewed. Church (2011) concluded that teachers perceived that they lacked appropriate professional development opportunities and training on school safety. Church (2011) also found that teachers believed that the school, community, and family play a role in addressing school violence.

Alba (2011) studied the perceptions of crisis preparedness among Rhode Island public school administrators and first responders. The survey created and used by Alba (2011) was titled *Principal Perceptions of School Safety & Preparedness Survey* and focused on the following eight factors: background, access and identification, internal security, safety preparedness development, safety preparedness student activities, safety preparedness first responder activities, levels of preparedness, and influences on efforts towards safety preparedness. The last seven areas related to crisis preparedness were included in the current study; however, the background section of Alba's (2011) survey was unused because the demographic items did not align with the purposes of the current study. Sixty principals from Rhode Island public schools participated in the study to identify their "perceptions of their school's safety and preparedness planning in the event of a variety of emergency situations" (Alba, 2011, p. 160). Significant differences were found in the perceptions among school administrators. Alba (2011) found that the lack of

cooperation from teachers to following safety protocols was noted by principals, who shared that “teachers were resistant to new policies or changes to existing practices” (p. 145). Alba concluded that there was a lack of a coordinated response plan to communicate with parents in the case of an emergency and that the principals’ perceptions of safety preparedness varied at each school level. He found that staff perceptions of emergency preparedness also varied at each school level where elementary schools implemented external security measures of identifying visitors more than high schools, and high school implemented internal security measures more than elementary schools. Alba also concluded that high school principals implemented crisis drills with first responders more than elementary and middle school principals (Alba, 2011). Finally, Alba’s (2011) recommendations were that all staff should receive more professional development for crisis preparedness, school districts should develop district-level crisis management teams as well as conduct regular emergency drills at each building.

Hammond (2011) examined Massachusetts superintendents’ perceptions of multi-hazard emergency planning in public schools. The “study focused on the extent of the development of multi-hazard emergency plans and the catalysts and obstacles that school leaders identify in the creation and implementation of the plans” (Hammond, 2011, p. 51). She found that although public school districts in Massachusetts are required to meet with the fire chief and chief of police to create a multi-hazard evacuation plans as well as report incidents of violence and crime, districts are not required to submit the plan to the Massachusetts Department of Elementary and Secondary Education, which seemed to defeat the purpose of accountability standards enacted by the NCLB, which mandated

that states which receive funding under the Act identify schools that are persistently dangerous (Hutton & Bailey, 2007).

Hammond (2011) used both quantitative and qualitative data collection procedures with non-randomly selected participants. Superintendents participated in qualitative interviews and completed a quantitative questionnaire. Hammond explored whether there was a significant difference concerning the implementation of an emergency preparedness plan among districts in Massachusetts, what are the obstacles, and what are the most common strategies to promote preparedness. Hammond (2011) found that school leaders have a duty to ensure student, faculty, and staff safety, and they must find a balance when trying to achieve this. Hammond (2011) discovered that with respect to urbanicity, there was not a significant difference among superintendent perceptions of the level of implementation of multi-hazard emergency planning. The findings of the study also indicated that collaboration was needed for multi-hazard emergency planning and the primary hindrances to such planning were limited time and resources. Furthermore, the findings of the study indicated that communication, training, and funding were the strategies superintendents utilized most. The 2007 GAO study noted that school officials “struggle to balance priorities related to educating students and other administrative responsibilities with the activities for emergency management” (p. 6).

In a quantitative study, Lynch (2013) examined how school crisis preparedness affects violence in public schools, based on a principal’s perspective. She also explored the impact of a written crisis plan, classroom management, training interventions, and parent involvement had on decreasing the incidents of public-school violence. The

purpose of the study was to determine the association between a school possessing a written crisis plan and incidents of school violence. She also looked at the association between classroom management, training interventions, and parent involvement and the incidents of school violence. The 2005-2006 School Survey on Crime and Safety Principal Questionnaires was used with participants who were principals in public schools throughout the United States. Lynch (2013) found that a safe and orderly environment was necessary for the physical and mental well-being of students and staff, and principals have a responsibility for building a positive school climate that fosters teaching and learning. The results of the study also indicated that many principals had increased their efforts to reduce incidents of violence by improving school climate, establishing effective classroom management practices, and increasing parental involvement.

Dixon (2014) conducted a qualitative study that involved interviews with 10 K-12 teachers from the Midwest to explore their perceptions of safety and preparedness within their school environments considering recent school shootings using a snowball sampling technique. The focus of research is usually about the impact of students, and little had been done to research the impact of crime on teachers in schools and their perceptions of safety. Dixon (2014) used a generic, qualitative approach to interview the Midwestern teachers in person, which allowed them to share their personal experiences, and concluded that teachers' perceptions were limited. The major theme described in the study was safety preparedness. Dixon (2014) found that teachers are the victims of violence and crime such as theft, rape, and assault in their work environment and are often at an even greater risk than students. Most participants felt that they were safe but

tended to feel safer when they had stronger relationships with the students, and they felt comfortable with their surroundings. The participants also shared that they tended to feel more comfortable if they had training offered by the district. “Teachers in the study mentioned that their school did not offer them training to address the types of school violence” (Dixon, 2014, p. 145). Several mentioned that the district should offer more training to address safety issues as they arise and that although the district had taken steps to address the crisis, there was still a need for improvement. Participants also mentioned that districts should offer training regularly to keep the information fresh in their minds. When asked, some believed that they were most prepared to handle an attack if they knew the person because they had more confidence that they would be able to talk that person out of doing it whereas they did not have the same confidence when handling situations involving intruders who were strangers (Dixon, 2014). Participants also felt that schools displayed strengths when dealing with situations in an unconventional manner for students who display violent tendencies and noted that school psychologists and counselors could be a great resource for students (Dixon, 2014).

Dain (2015) explored the perceptions of staff and parents from a suburban district near Kansas City related to the implementation of the Alert, Lockdown, Inform, Counter, Evacuate (ALICE) active shooter response training. The study focused on whether staff and parents perceived that the ALICE plan helped prepare them in the case of an active shooter incident. An additional focus was whether staff perceptions were affected by school level and gender. Lastly, perceptions were analyzed to determine whether staff and parents believed each aspect of the ALICE plan would be possible to implement and if they would be safer after receiving ALICE training. Dain (2015) found that there was

no difference in perception among parents based on gender and that elementary parents and teachers tended to believe that the ALICE plan could be more effective when dealing with armed intruders more than middle school parents. Both parents and staff agreed that schools are safer as a result of the ALICE training. Parents and staff in District A revealed positive perceptions regarding the ALICE initiative and were confident that the school could implement the ALICE plan when faced with a critical intruder incident. Overall, parents agreed that schools are safer as a result of the ALICE training.

Summary

A comprehensive review of the literature regarding perceptions of crisis preparedness was included in this chapter. The review included the theoretical framework, historical perspective of crisis preparedness, crisis preparedness plans, evolution of regulations for school crisis preparedness, and perceptions of crisis preparedness. The methodology related to this study is presented in Chapter 3.

Chapter 3

Methods

The purpose of this study was to determine Kansas and Missouri superintendents' perceptions of crisis preparedness in their districts and whether those perceptions differed based on district size or state. This chapter includes a description of the methods utilized to conduct this study. This chapter includes the research design, selection of participants, measurement, data collection, data analysis and hypothesis testing, and limitations.

Research Design

A quantitative research design utilizing survey methods was used to determine the perceptions of superintendents in Kansas and Missouri about crisis preparedness. The independent variables included in the study were the district size (small, medium, large) and state (Kansas or Missouri). The dependent variables in the study were superintendents' perceptions of the following crisis preparedness areas: access and identification, internal security, safety preparedness development, safety preparedness student activities, safety preparedness first responder activities, levels of preparedness, and influences on efforts towards safety preparedness.

Selection of Participants

The population was comprised of all Kansas and Missouri superintendents of public-school districts of varying sizes during the 2016-2017 school year. Only superintendents who received and completed the entire survey were included in the study. The sample consisted of those superintendents who voluntarily completed the survey.

Measurement

The survey instrument used for measurement in this study was created by Alba (2011) and, titled *Principal Perceptions of School Safety & Preparedness Survey (PPSSPS)*, contained 65 items and eight sections. Alba granted permission for the survey to be used and modified (see Appendix A). Items utilized in this study were modified in collaboration with a Kansas school district's emergency management committee who reviewed the survey and made suggestions to gain information for future changes and improvements in its district's safety preparedness. The survey was modified to collect numerical data on the perceptions of Kansas and Missouri superintendents.

The survey used for this study, *Superintendents' Perceptions of School Safety Survey*, contains 62 items within nine sections (see Appendix B). The survey contains a brief demographics section with two closed-ended items designed to gather data regarding participants' district size and state respectively. Participants were asked to select the number of students enrolled in the district from the following ranges: 0-500 students, 501-5,000 students, or over 5,000 students. These ranges were classified as small (0-500), medium (501-5,000) and large (over 5,000). Participants were also asked to select in which state (Kansas, Missouri) their district was located. The mean scores for the crisis preparedness disaggregated by size and state were used for analyses related to RQ2, RQ4, RQ6, RQ8, RQ10, RQ12, and RQ14. These background items enabled the researcher to take into consideration the effect of size and state on superintendents' perceptions.

The second section of the survey consisted of 10 Likert-type response items, which were used to gather data on building access and identification practices that were

in place during the 2016-2017 school year wherein the scale responses are (1) *never*, (2) *rarely*, (3) *occasionally*, (4) *often*, and (5) *always*. The mean score for the items related to access and identification practices was used for the analyses related to RQ1, and RQ2.

The third section consists of 10 Likert-type response items regarding internal security practices that were in place in district buildings during the 2016-2017 school year with a scale response that ranged from (1) *never* to (5) *always*. The mean score for the items related to internal security was used for analyses related to RQ3 and RQ4. The fourth section consists of four Likert-type response items regarding how often safety preparedness development, plan, and review were in practice in district buildings during the 2016-2017 school year wherein the scale responses are (1) *never*, (2) *rarely (2 years or longer)*, (3) *occasionally (annually)*, (4) *often (bi-annually)*, and (5) *always (quarterly)*. The mean score for items related to the extent that crises preparedness development was in practice was used for analyses related to RQ5 and RQ6. The fifth section consists of nine Likert-type response items regarding how often students were informed or drilled on written components of school crisis plan during the 2016-2017 school year wherein the scale responses are (1) *not part of the written plan*, (2) *never (in the plan but never drilled)*, (3) *occasionally (annually)*, (4) *often (2-4 times annually)*, and (5) *constantly (5 or more times annually)*. The mean score for items related to students being informed or drilled on written components was used for analyses related to RQ7 and RQ8. The sixth section consists of nine Likert-type response items regarding how often first responder personnel were involved with drills on written components of the district's crisis preparedness plan during the 2016-2017 school year wherein the scale responses are (1) *not part of written plan*, (2) *never (in the plan but never drilled)*, (3)

occasionally (annually), (4) often (2-4 times annually), and (5) constantly (5 or more times annually). The mean score for items related to the involvement of first responders was used for analyses related to RQ9 and RQ10. The seventh section consisted of seven Likert-type response items regarding superintendents' perceptions of their district's preparedness in the following areas during the 2016-2017 school year: having a disaster plan, conduction of drills, being trained in an emergency response, having appropriate emergency equipment and supplies, capacity to shelter student for at least 24 continuous hours, adequate storm shelter or area of safe refuge, and overall preparedness. The scale responses are (1) *unprepared*, (2) *slightly prepared*, (3) *mostly prepared*, and (4) *completely prepared*. The mean score for the items related to superintendents' perceptions was used for analyses related to RQ11 and RQ12. The eighth section consists of 11 Likert-type response items regarding external and internal factors that influenced efforts to maintain a safe and secure school district during the 2016-2017 school year wherein the scale responses are (1) *not at all influential*, (2) *slightly influential*, (3) *somewhat influential*, (4) *very influential*, to (5) *extremely influential*. The mean score for the items related to external and internal factors that influenced efforts to maintain a safe and secure school district was used for analyses that addressed RQ13 and RQ14.

Alba (2011) based the validity of the original instrument on a piloted internet version of the survey administered to four Rhode Island administrators, support from the literature on crisis preparedness, and content experts from Rhode Island in the area of school safety. Directions, content and rating format for readability and ease of understanding were examined, and revisions were made based on the data provided by

the pilot survey respondents. In addition to Alba's evidence, the researcher also received feedback from an expert safety officer and a safety committee in a Kansas district in making sure that the measurement was good, and the survey was a valid tool that measured specific items in terms of safety issues in Kansas and Missouri.

Because modifications were made to Alba's survey, a reliability analysis was conducted on the seven scales. Cronbach's alpha coefficients were calculated to estimate the reliability of the scales. The coefficients ranged between .623 and .865, which indicates strong reliability for the scale (see Table 1).

Table 1

Reliability Coefficients for Crisis Preparedness Scales

	Cronbach's α	n	k
Access and Identification	.773	131	10
Internal Security	.623	129	10
Safety preparedness development	.756	131	4
Safety preparedness activities: students	.733	112	9
Safety preparedness activities: first responders	.865	123	9
Levels of preparedness	.812	128	7
Influences on efforts towards safety preparedness	.852	122	11

Note. n = sample size, k = number of items

Data Collection Procedures

The study employed a quantitative technique to address all research questions, which allowed the researcher to explore different perceptions within the context of district size and state. Before data collection was initiated, the researcher requested (see Appendix C) and received Institutional Review Board (IRB) approval (see Appendix D).

Email addresses of Kansas superintendents were collected from the Kansas State Department of Education website. Email addresses of superintendents in Missouri were retrieved from the Missouri Department of Elementary and Secondary Education. After a list of email addresses was compiled, the email addresses were downloaded into an Excel spreadsheet.

The researcher utilized a cross-sectional, self-administered, Internet-based questionnaire, which was accessible to participants through SurveyMonkey.com. A link to the online survey was distributed via email and was sent to each superintendent. Included in the solicitation email was a statement that completing and submitting the survey would indicate the superintendent's consent to participate and permission to use the information provided in the survey. Additionally, the email included a statement that the survey was completely anonymous, and that the information reported in the results would not indicate individual participants or school districts. The distribution list was used to send an email to Kansas and Missouri superintendents requesting their participation in the survey on May 15, 2017 (see Appendix C). The survey closed on June 30, 2017.

Data Analysis and Hypothesis Testing

The focus of this study was superintendents' perceptions of crisis preparedness. Data were downloaded from SurveyMonkey and were imported to the IBM SPSS Statistics Faculty Pack 24 for Windows for analysis. The 14 research questions with the corresponding hypotheses and methods of analysis are included below.

RQ1. To what extent do superintendents perceive that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year?

H1. Superintendents perceive that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year.

A one-sample *t* test was conducted to test *H1*. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ2. To what extent are superintendents' perceptions that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year affected by district size and state?

H2. Superintendents' perceptions that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year were affected by district size.

A one-factor analysis of variance (ANOVA) was conducted to test *H2*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05.

H3. Superintendents' perceptions that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year were affected by state.

An independent-samples test was conducted to test *H3*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05.

RQ3. To what extent do superintendents perceive that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year?

H4. Superintendents perceive that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year.

A one-sample t test was conducted to test *H4*. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ4. To what extent are superintendents' perceptions that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year affected by district size and state?

H5. Superintendents' perceptions that crisis preparedness activities associated with internal security were present in their district building during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H5*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05.

H6. Superintendents' perceptions that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year were affected by state.

An independent-samples t test was conducted to test *H6*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05.

RQ5. To what extent do superintendents perceive that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year?

H7. Superintendents perceive that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year.

A one-sample *t* test was conducted to test *H7*. The sample mean was tested against a null value of 2. The level of significance was set at .05.

RQ6. To what extent are superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year affected by district size and state?

H8. Superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H8*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05.

H9. Superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test *H9*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05.

RQ7. To what extent do superintendents perceive that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year?

H10. Superintendents perceive that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year.

A one-sample t test was conducted to test H10. The observed frequencies were compared to those expected by chance. The level of significance was set at .05.

RQ8. To what extent are superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year affected by district size and state?

H11. Superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year were affected by district size.

A one-factor ANOVA test of independence was conducted to test H11. The categorical variable used to group the superintendent perception was district size (small, medium, large). The level of significance was set at .05.

H12. Superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year were affected by state.

An independent-samples t test was conducted to test H12. The two sample means for the perception of Kansas and Missouri superintendents were compared. The level of significance was set at .05.

RQ9. To what extent do superintendents perceive that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year?

H13. Superintendents perceive that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year.

A one-sample *t* test was conducted to test H13. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ10. To what extent are superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year affected by district size and state.

H14. Superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test H14. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05.

H15. Superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test H15. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05.

RQ11. To what extent do superintendents perceive that their district was prepared for a crisis during the 2016-2017 school year?

H16. Superintendents perceive that their district was prepared for a crisis during the 2016-2017 school year

A one-sample *t* test was conducted to test *H16*. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ12. To what extent are superintendents' perceptions that their district was prepared for a crisis during the 2016-2017 school year affected by district size and state?

H17. Superintendents' perceptions that their district was prepared for a crisis during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H17*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05.

H18. Superintendents' perceptions that their district was prepared for a crisis during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test *H18*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05.

RQ13. To what extent do superintendents perceive that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year?

H19. Superintendents perceive that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year.

A one-sample *t* test was conducted to test *H19*. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ14. To what extent are superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year affected by district size and state.

H20. Superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H20*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05.

H21. Superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test *H21*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05.

Limitations

Limitations are variables that cannot be controlled by the researcher, and that may affect the outcome of the study. Limitations must be identified by the researcher because

they “may have an effect on the interpretations of the finding or on the generalizability of the results” (Lunenborg & Irby, 2008, p. 133). The factors identified as potential limitations of this study are shown below.

1. The study was limited to superintendents who completed and submitted the survey because participation was voluntary.
2. The knowledge base of superintendents regarding safety preparedness is unknown.

Summary

Chapter 3 was composed of a discussion of research design, selection of participants, measurement, and data collection. Data analysis and hypothesis testing were described for each hypothesis. Limitations were also included in this chapter. Chapter 4 includes the descriptive statistics and the results of the hypothesis testing.

Chapter 4

Results

Chapter 4 contains the descriptive statistics and the results of the data analysis and hypothesis testing related to superintendents' perceptions of crisis preparedness in public school districts in Kansas and Missouri. Specifically, the purpose of this study was to determine the perceptions of Kansas and Missouri superintendents on crisis preparedness (access and identification, internal security, safety preparedness development, safety preparedness student activities, safety preparedness first responder activities, levels of preparedness, and influences on efforts toward safety preparedness). An additional purpose was to determine whether the difference in perceptions was affected by district size (small, medium, and large) and by state (Kansas or Missouri).

Descriptive Statistics

The descriptive statistics provided information about superintendents in Kansas and Missouri who participated in the study. A total of 142 superintendents provided their state when responding to item 2 in the survey with the majority of responses from Kansas superintendents (63%). Approximately 39 %of the superintendents who responded were from small-sized districts. Approximately 53% of the superintendents who responded were from medium-sized districts, and only slightly less than 8% of the superintendents who responded were from large-sized districts. See Table 2 for the demographics of the participants.

Table 2

Study Participants

Demographic	<i>N</i>	%
State		
Kansas	89	62.68
Missouri	53	37.32
District Size		
Small (0-500)	56	38.89
Medium (501-5,000)	77	53.47
Large (over 5,000)	11	7.64

Hypothesis Testing

Data from Survey Monkey were downloaded and imported into Excel. The data were then imported into the IBM SPSS Statistics Faculty Pack 24 for Windows for analysis. Fourteen research questions were the focus of the analysis. Each research question below is followed by the accompanying hypotheses, the methods of analysis, and the results of the hypothesis testing.

RQ1. To what extent do superintendents perceive that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year?

H1. Superintendents perceive that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year.

A one-sample t test was conducted to test H1. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test indicated a statistically significant difference between the two values, $t = 3.526$, $df = 131$, $p = .001$. The sample mean ($M = 3.22$, $SD = .72$) was higher than the null value (3). Superintendents perceive that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year. H1 was supported.

RQ2. To what extent are superintendents' perceptions that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year affected by district size and state?

H2. Superintendents' perceptions that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test H2. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05. The results of the analysis indicated at least two means were significantly different, $F = 24.284$, $df = 2, 129$, $p = .000$. A post hoc, the Tukey's Honestly Significant Difference (HSD), was conducted to determine which pairs of means were different (see Table 3 for the descriptive statistics for this analysis). The results of the post hoc indicated that the mean for small districts ($M = 2.79$) was lower than the mean for medium districts ($M = 3.45$) and large districts ($M = 4.01$). The mean for medium districts ($M = 3.45$) was lower than the mean for large districts ($M = 4.01$). Superintendents' perceptions that crisis preparedness activities associated with access and

identification were present in their district buildings during the 2016-2017 school year were affected by district size. H2 was supported.

Table 3

Descriptive Statistics for the Results of the Test for H2

District Size	<i>N</i>	<i>M</i>	<i>SD</i>
Small	53	2.79	0.69
Medium	70	3.45	0.58
Large	9	4.01	0.53

H3. Superintendents' perceptions that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test H3. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05. The results of the test indicated a marginally significant difference between the two means, $t = -1.719$, $df = 130$, $p = .088$. Kansas superintendents' perceptions that crisis preparedness activities associated with access and identification were present ($M = 3.14$, $SD = 0.75$) were lower than Missouri superintendents' perceptions that crisis preparedness activities associated with access and identification were present ($M = 3.36$, $SD = 0.67$). Superintendents' perceptions that crisis preparedness activities associated with access and identification were present in their district buildings during the 2016-2017 school year were affected by state. H3 was supported.

RQ3. To what extent do superintendents perceive that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year?

H4. Superintendents perceive that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year.

A one-sample t test was conducted to test *H4*. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test indicated a statistically significant difference between the two values, $t = 2.887$, $df = 131$, $p = .005$. The sample mean ($M = 3.17$, $SD = .67$) was higher than the null value (3). Superintendents perceive that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year. *H4* was supported.

RQ4. To what extent are superintendents' perceptions that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year affected by district size and state?

H5. Superintendents' perceptions that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H5*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05. The results of the analysis indicated at least two means were significantly different, $F = 16.068$, $df = 2, 129$, $p = .000$. A post hoc, the Tukey's HSD, was conducted to determine which pairs of means were different (see Table 4 for

the descriptive statistics for this analysis). The results of the post hoc indicated that the mean for small districts ($M = 2.85$) was lower than the mean for medium districts ($M = 3.32$) and large districts ($M = 3.89$). The mean for medium districts ($M = 3.32$) was lower than the mean for large districts ($M = 3.89$). Superintendents' perceptions that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year were affected by district size. $H5$ was supported

Table 4

Descriptive Statistics for the Results of the Test for H5

District Size	<i>N</i>	<i>M</i>	<i>SD</i>
Small	53	2.85	0.59
Medium	70	3.32	0.63
Large	9	3.89	0.40

H6. Superintendents' perceptions that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test *H6*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05. The results of the test indicated a statistically significant difference between the two means, $t = -3.816$, $df = 130$, $p = .000$. Kansas superintendents' perceptions that crisis preparedness activities associated with internal security were present ($M = 3.00$, $SD = 0.68$) were lower than Missouri superintendents' perceptions that crisis preparedness activities associated with internal security were

present ($M = 3.43$, $SD = 0.56$). Superintendents' perceptions that crisis preparedness activities associated with internal security were present in their district buildings during the 2016-2017 school year were affected by state. H6 was supported.

RQ5. To what extent do superintendents perceive that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year?

H7. Superintendents perceive that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year.

A one-sample t test was conducted to test H7. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test indicated no statistically significant difference between the two values, $t = 0.534$, $df = 131$, $p = .594$. The sample mean ($M = 3.03$, $SD = .61$) was not different from the null value (3). Superintendents did not perceive that crisis preparedness development associated with safety preparedness was practiced often or always in their district buildings during the 2016-2017 school year. H7 was not supported.

RQ6. To what extent are superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year affected by district size and state?

H8. Superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H8*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05. The results of the analysis indicated at least two means were marginally different, $F = 2.820$, $df = 2, 129$, $p = .063$ (see Table 5 for the descriptive statistics for this analysis). Although not significantly different, the mean for small districts ($M = 2.88$) was lower than the mean for medium districts ($M = 3.11$) and large districts ($M = 3.25$). The mean for medium districts ($M = 3.11$) was lower than the mean for large districts ($M = 3.25$). Superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year affected by district size. *H8* was supported.

Table 5

Descriptive Statistics for the Results of the Test for H8

District Size	<i>N</i>	<i>M</i>	<i>SD</i>
Small	53	2.88	0.59
Medium	70	3.11	0.62
Large	9	3.25	0.53

H9. Superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced in their district buildings during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test *H9*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05. The results of the test indicated the difference between the two means was not statistically significant, $t = 0.276$, $df = 130$, $p = .783$. Kansas

superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced ($M = 3.04$, $SD = 0.65$) were not different from Missouri superintendents' perceptions that crisis preparedness development associated with safety preparedness was practiced ($M = 3.01$, $SD = 0.55$). H9 was not supported.

RQ7. To what extent do superintendents perceive that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year?

H10. Superintendents perceive that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year.

A one-sample t test was conducted to test H10. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test indicated a statistically significant difference between the two values, $t = -9.641$, $df = 131$, $p = .000$. The sample mean ($M = 2.63$, $SD = .44$) was lower than the null value (3). Superintendents did not perceive that students were occasionally, often, or constantly informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year. H10 was not supported.

RQ8. To what extent are superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year affected by district size and state?

H11. Superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H11*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05. The results of the analysis indicated at least two means were significantly different, $F = 5.348$, $df = 2, 129$, $p = .006$. A post hoc, the Tukey's HSD, was conducted to determine which pairs of means were different (see Table 6 for the descriptive statistics for this analysis). The results of the post hoc indicated that the mean for small districts ($M = 2.49$) was lower than the mean for medium districts ($M = 2.70$) and large districts ($M = 2.88$). Superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year were affected by district size. *H11* was supported.

Table 6

Descriptive Statistics for the Results of the Test for H11

District Size	<i>N</i>	<i>M</i>	<i>SD</i>
Small	53	2.49	0.46
Medium	70	2.70	0.39
Large	9	2.88	0.55

H12. Superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test *H12*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05. The results of the test indicated the difference between the

two means was not statistically significant, $t = 0.156$, $df = 130$, $p = .877$. Kansas superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan ($M = 2.63$, $SD = 0.45$) were not different from Missouri superintendents' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan ($M = 2.62$, $SD = 0.44$). H12 was not supported.

RQ9. To what extent do superintendents perceive that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year?

H13. Superintendents perceive that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year.

A one-sample t test was conducted to test H13. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test indicated a statistically significant difference between the two values, $t = -19.14$, $df = 128$, $p = .000$. The sample mean ($M = 2.07$, $SD = .55$) was lower than the null value (3). Superintendents did not perceive that first responder personnel were occasionally, often, or constantly involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year. H13 was not supported.

RQ10. To what extent are superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year affected by district size and state.

H14. Superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H14*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05. The results of the analysis indicated at least two means were significantly different, $F = 9.228$, $df = 2, 126$, $p = .000$. A post hoc, the Tukey's HSD, was conducted to determine which pairs of means were different (see Table 7 for the descriptive statistics for this analysis). The results of the post hoc indicated that the mean for small districts ($M = 1.88$) was lower than the mean for medium districts ($M = 2.15$) and large districts ($M = 2.61$). The mean for medium districts ($M = 2.15$) was lower than the mean for large districts ($M = 2.61$).

Superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year were affected by district size. *H14* was supported.

Table 7

Descriptive Statistics for the Results of the Test for H14

District Size	<i>N</i>	<i>M</i>	<i>SD</i>
Small	52	1.88	0.49
Medium	68	2.15	0.48
Large	9	2.61	0.89

H15. Superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test *H15*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05. The results of the test indicated the difference between the two means was not statistically significant, $t = -0.308$, $df = 127$, $p = .758$. Kansas superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan ($M = 2.06$, $SD = 0.53$) were not different from Missouri superintendents' perceptions that first responder personnel were involved with drills on the components of the district's crisis preparedness plan ($M = 2.09$, $SD = 0.58$). *H15* was not supported.

RQ11. To what extent do superintendents perceive that their district was prepared for a crisis during the 2016-2017 school year?

H16. Superintendents perceive that their district was prepared for a crisis during the 2016-2017 school year.

A one-sample *t* test was conducted to test *H16*. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample *t* test indicated a statistically significant difference between the two values, $t = -2.380$, $df = 128$, $p = .019$. The sample mean ($M = 2.896$, $SD = .496$) was lower than the null value (3). Superintendents did not perceive that crisis preparedness development associated with safety preparedness was practiced occasionally, often, or always in their district buildings during the 2016-2017 school year. *H16* was not supported.

RQ12. To what extent are superintendents' perceptions that their district was prepared for a crisis during the 2016-2017 school year affected by district size and state?

H17. Superintendents' perceptions that their district was prepared for a crisis during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H17*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05. The results of the analysis indicated the means were not significantly different, $F = 1.006$, $df = 2, 126$, $p = .369$ (see Table 8 for the descriptive statistics for this analysis). Superintendents' perceptions that their district was prepared for a crisis during the 2016-2017 school year were not affected by district size. *H17* was not supported.

Table 8

Descriptive Statistics for the Results of the Test for H17

District Size	<i>N</i>	<i>M</i>	<i>SD</i>
Small	52	2.86	0.53
Medium	68	2.89	0.49
Large	9	3.11	0.32

H18. Superintendents' perceptions that their district was prepared for a crisis during the 2016-2017 school year were affected by state.

An independent-samples *t* test was conducted to test *H18*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05. The results of the test indicated a statistically significant difference between the two means, $t = -3.289$, $df = 127$, $p = .001$. Kansas

superintendents' perceptions that their district was prepared for a crisis ($M = 2.79$, $SD = 0.41$) were lower than Missouri superintendents' perceptions that their district was prepared for a crisis ($M = 3.07$, $SD = 0.58$). H18 was supported.

RQ13. To what extent do superintendents perceive that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year?

H19. Superintendents perceive that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year.

A one-sample t test was conducted to test H19. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test indicated a statistically significant difference between the two values, $t = -12.644$, $df = 127$, $p = .000$. The sample mean ($M = 2.22$, $SD = .69$) was lower than the null value (3). Superintendents did not perceive that safety preparedness efforts to maintain a safe and secure district were somewhat influenced, very influenced, or extremely influenced by external and internal factors during the 2016-2017 school year. H19 was not supported.

RQ14. To what extent are superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year affected by district size and state.

H20. Superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year were affected by district size.

A one-factor ANOVA was conducted to test *H20*. The categorical variable used to group the superintendent perceptions was district size (small, medium, large). The level of significance was set at .05. The results of the analysis indicate the difference between at least two means was marginally significant, $F = 3.052$, $df = 2,125$, $p = .051$ (see Table 9 for the descriptive statistics for this analysis). The mean for small districts ($M = 1.72$) was lower than the mean for medium districts ($M = 2.21$) and large districts ($M = 2.33$). The mean for medium districts ($M = 2.21$) was lower than the mean for large districts ($M = 2.33$). Although not significantly different, superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year were affected by district size. *H20* was supported.

Table 9

Descriptive Statistics for the Results of the Test for H20

District Size	<i>N</i>	<i>M</i>	<i>SD</i>
Small	52	2.33	0.73
Medium	67	2.21	0.66
Large	9	1.72	0.55

H21. Superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors during the 2016-2017 school year were affected by state.

An independent samples *t* test was conducted to test *H21*. The two sample means for the perceptions of Kansas and Missouri superintendents were compared. The level of significance was set at .05. The results of the test indicated the difference between the

two means was not statistically significant, $t = 1.092$, $df = 126$, $p = .277$. Kansas superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors ($M = 2.28$, $SD = 0.69$) were not different from Missouri superintendents' perceptions that safety preparedness efforts to maintain a safe and secure district were influenced by external and internal factors ($M = 2.14$, $SD = 0.69$). H21 was not supported.

Summary

Chapter 4 contained the descriptive statistics and the results of the data analysis and hypothesis testing related to Kansas and Missouri superintendent's perceptions of crisis preparedness. The results of the one-sample t -tests, independent samples t -tests, and one-factor ANOVAs were presented. Chapter 5 includes a study summary, findings related to the literature, and the conclusions.

Chapter 5

Interpretation and Recommendations

Chapter 5 provides a summary of the study with an overview of the problem, the purpose statement and research questions, the methodology, and the major findings.

Next is a discussion of the findings related to the literature. In the final section the concluding remarks, which include the implications for action, the recommendations for future research, and the concluding remarks are presented.

Study Summary

Examined in this study were Kansas and Missouri superintendents' perceptions on crisis preparedness in the following seven areas: access and identification, internal security, safety preparedness development, safety preparedness student activities, safety preparedness first responder activities, levels of preparedness, and influences on efforts towards safety preparedness. The results of this study could provide further insight into how well prepared for crises school districts are in Kansas and Missouri and identify areas of strengths and weaknesses in crisis preparedness. This section includes an overview of the problem, the purpose statement and research questions, and an overview of the methodology, and the major findings.

Overview of the problem. Creating and maintaining a positive school climate is important for students to feel safe in their educational environment. Communities play an important role in developing a safe and nurturing school climate. As noted by Estep (2013), establishing strong community relationships is necessary for school safety. The role of the community is a valuable resource for school districts. A strong community helps build strong relationships between school leaders and community leaders, and collaboration is needed to work together on improving crisis preparedness plans and

training in public schools. According to Badzmierowski (2011), “education institutions should train staff to respond appropriately in the event of a crisis situation” (p. 29).

Improving crisis preparedness training in public school districts is ongoing, and the community is an integral part of the training. Although public school districts have updated security features and safety training procedures, superintendents in Kansas and Missouri may not perceive that these efforts have been sufficient to help prevent a crisis (Henriques, 2010). In recent years, much money has been spent on security improvements in public school districts throughout the nation; however, the perceptions of superintendents of public school districts in Kansas and Missouri related to crisis preparedness have yet to be determined.

Purpose statement and research questions. The purpose of this study was to determine the perceptions of Kansas and Missouri superintendents on crisis preparedness (access and identification, internal security, safety preparedness development, safety preparedness student activities, safety preparedness first responder activities, levels of preparedness, and influences on efforts toward safety preparedness). A second purpose was to determine whether the difference in perceptions was affected by district size (small, medium, and large). A third purpose was to determine whether the difference in perceptions was affected by state (Kansas and Missouri). To address the purposes of the study, 14 research questions were posed, and 21 hypotheses were tested.

Review of the methodology. By utilizing an online survey, a quantitative research design was used to determine the perceptions about crisis preparedness of superintendents in Kansas and Missouri. Superintendents from public-school districts in Kansas and Missouri during the 2016-2017 school year comprised the sample. The

online survey instrument used in this study was created by Alba (2011) and was modified to collect perceptual data from Kansas and Missouri superintendents. Statistical procedures used for this research study included one-sample t tests, which determined whether the population mean was significantly different from the hypothesized value; independent-samples t tests were used to determine whether there was a statistically significant difference between the means of two independent groups of Kansas and Missouri superintendents; and one-factor ANOVAs were used to test hypotheses and to compare the means between groups (small, medium, and large districts) to determine if those means were statistically different from each other.

Major findings. The purpose of the study was to identify which of the following seven areas of crisis preparedness that Kansas and Missouri superintendents perceive were present in their districts during the 2016-2017 school year: access and identification, internal security, safety preparedness development, safety preparedness student activities, safety preparedness first responder activities, levels of preparedness, and influences on efforts towards safety preparedness. Results revealed that superintendents do perceive that crisis preparedness activities associated with access and identification and with internal security were present in district buildings during the 2016-2017 school year. However, superintendents do not perceive that the five other areas of crisis preparedness were present in the district buildings during the 2016-2017 school year.

The results of the analysis indicated that superintendents' perceptions of crisis preparedness activities were lower in small districts than they were in medium and large districts and medium districts were lower than large districts in the following areas: access and identification, internal security, safety preparedness development, safety

preparedness first responder activities, and influences on efforts towards safety preparedness. The results of the analysis also revealed that superintendents' perceptions of crisis preparedness student activities for small districts were lower than the responses from medium and large districts. Responses for level of preparedness construct revealed that there were no differences in superintendents' perceptions when disaggregated by district size and state.

The results of the analysis indicated that superintendents' perceptions that crisis preparedness activities associated with access and identification, internal security, and levels of preparedness were present in their district buildings during the 2016-2017 school year were affected by district state. Kansas superintendents' perceptions were lower than Missouri superintendents. Superintendents' responses for the other crisis preparedness constructs were not affected by state.

Findings Related to the Literature

Examined in this study were superintendents' perceptions of crisis preparedness of public-school districts in Kansas and Missouri. More research studies have been conducted in the area of school violence and perceptions of parents, teachers, principals, and staff. However, there has not been much research conducted that examines the perceptions of superintendents.

Analysis of the data revealed that most school districts in Kansas and Missouri do not offer adequate training for faculty and staff to respond effectively in the event of a crisis. Superintendents in both Kansas and Missouri did not note a reluctance to follow safety plans as a hindrance. However, both Kansas and Missouri superintendents perceived that lack time and lack of funding for training was an obstacle. Results also

found that both Kansas and Missouri superintendents perceived that the development of multi-hazard plans was not occurring in their districts or that crisis preparedness development was happening in general for staff, students, or in conjunction with first responders.

Swiontek (2009) also examined the perspectives of superintendents in North Dakota and found that it was true that 1) superintendents did perceive that most districts had emergency plans in place, 2) superintendents did not perceive that public schools in North Dakota had comprehensive emergency response plans in place which covered a wide array of multi-hazards and crises, 3) superintendents did perceive that the district offered emergency training to some of its employees, and 4) superintendents did not perceive that the training offered through the North Dakota LEAD Center emergency response planning program was comprehensive and effective in preparing them to respond to various crises. The findings of the current study support the findings of Swiontek (2009).

The findings in this study also corroborate the findings of Hammond (2011) where the perceptions of superintendents in Massachusetts in relation to multi-hazard emergency plans in public schools were examined to determine if the multi-hazard emergency plans 1) existed, 2) were effective and, 3) the creation and implementation of such plans was hindered. Hammond (2011) found that lack of time and resources and collaboration was a primary obstacle for the implementation of comprehensive crisis plans, which was also noted in this study. According to Zantal-Wiener, & Horwood (2010), common factors impacting emergency planning are time and people. The findings of Hammond's study revealed that superintendents perceived that time was an

issue even though it is important for medical professionals, police departments and other first responders to be a part of the crisis team at building and district levels.

Additionally, Hammond (2009) found that superintendents were better prepared for the initial planning phases of crisis planning and less prepared for the recovery phase of crisis planning. That was also shown to be true for this study. Although superintendents in Kansas and Missouri responded that nearly all district buildings have a crisis plan in place, the opposite was true for survey responses on how comprehensive the training was in the district. According to Hammond (2011), who examined Massachusetts superintendents' perceptions of multi-hazard emergency planning, districts are not required to submit their plans to state departments of education. These perceptions were true at the time of the current study for districts in Kansas and Missouri, which causes a preventable problem in oversight of the improvement and implementation of multi-hazard crisis preparedness plans.

In contrast to the findings in this study, educators in North Dakota were exposed to more safety training through district lead safety training programs. Swiontek (2009) found that offering some specialized training through the North Dakota LEAD Center Emergency Response Planning program was beneficial but did not lead to a comprehensive understanding of how to effectively respond to various crises. At the time of this study, no such training programs exist widespread for educators in Kansas and Missouri.

Conclusions

The findings of this study have significant implications for superintendents involved in crisis preparedness in their districts. This study provides insights into what

superintendents perceive about seven areas of crisis preparedness in their districts and where they might start to improve security in their districts. In the following sections, a comprehensive look at implications for action, recommendations for future research, and the concluding remarks are included.

Implications for action. The results of this research may assist superintendents and public-school districts in two key areas ways: 1) the analysis can be offered for ideas to improve the safety training provided to faculty and staff, and 2) the analysis can be used to improve crisis plans to incorporate better planning for a variety of hazards specific to Kansas and Missouri. School crisis events have heightened awareness of the need for school districts to prepare for crisis and the challenges encountered during planning, and it is important that districts provide faculty and staff with appropriate training in crisis preparedness. Superintendents and other district leaders should consider the results of this study in safety planning in preparation for a range of emergencies. The current study provides a reference for superintendent perceptions and can be used as a resource for school districts in school safety planning. Although most districts in Kansas and Missouri have school safety plans and have implemented school safety plans, many school districts have not taken steps to plan for a wide range of emergencies. The perceptions of superintendents in Kansas and Missouri about school safety should encourage other school districts to implement more comprehensive safety management plans.

The findings in this study suggest that the more comprehensive training school districts provide educational leaders, the more confident they will be in their ability to respond effectively to various crises. The findings of this study shared the perspectives

and perceptions associated with crisis preparedness of superintendents from small, medium, and large public-school districts in Kansas and Missouri. Results of the study could provide insightful information as to how superintendents in Kansas and Missouri could increase and improve training for all students and employee groups that ultimately heightens district security for all. Analysis of superintendents' responses in this study could help identify areas of perceived strength and weakness regarding crisis preparedness.

Hammond (2011) also recommended more resources be put into emergency preparedness and noted that if superintendents do not find a balance between curriculum, professional development, and expending resources on training for emergency preparedness, the districts will not be ready for a crisis. Once areas of growth are noted, superintendents could make recommendations for improvement in all areas of crisis planning that were included in the survey instrument used in this study. Based on the findings in this study, it is recommended that all staff receive more professional development related to crisis preparedness, and districts should develop district-level crisis management teams as well as conduct regular emergency drills at each building. It was revealed in both studies that little if any training was offered and that most safety drills practiced in districts are fire and tornado drills. Based on the findings, much work needs to be done on safety training and working in collaboration with stakeholders in the community.

If district crisis teams are not already in place, superintendents should form them and evaluate existing school and district crisis plans with the help of other members on the teams. A crisis team could ensure that plans would be comprehensive and cover a

variety of multi-hazard crises in addition to the following preparedness procedures: evacuations, parent-student reunification procedures, mobilizing school transportation during the school day, emergency communications protocol with parents and the media, and mobilizing mental health services. The superintendent should also oversee the formation of formal district-wide threat assessment teams, training on threat assessment and create a crisis communication plan. Once crisis plans and communication plans have been updated and school and district security measures have been refined, superintendents should implement best practices for school and district security and crisis preparedness planning and proactively communicate their plans for improvement in these areas to the public. Training all stakeholders including faculty and staff, SROs, first responders, and students on school safety is imperative, and time could be allotted for safety training at the beginning of each school year or classes offered throughout the school year as professional development. Lastly, superintendents should also continue to focus on strengthening partnerships with the community and public safety officials as they collaborate to make public schools safer.

It would benefit all public-school districts nation-wide if the U.S. DOE of education collaborated with state departments of education to institute safety and security best practices that all public-school districts must follow. Currently, each state department of education works independently on crisis preparedness. Conformity does not exist from state to state, which means some states are more prepared to handle a crisis than others and educators, who lack adequate safety training, are unfairly put in a position to act as first responders. The lack of oversight and compliance with mandated safety procedures has resulted in several districts nation-wide who are unprepared. While each

state should not be required to have the same standards for safety because different states are prone to different natural disasters, requiring that all states provide safety training for faculty, students and staff, practice a minimum number of various safety drill each year, have crisis teams, update crisis plans, and have crisis procedures and protocols in place in case of an emergency would benefit all. Educator and families who move from state to state would not experience a decrease in safety because the same expectations for implementation for best practices would be realized in each state.

Other recommended practices that are still not consistently implemented or not implemented at all that the GAO (2007) report recommended include: 1) conduct regular multi-hazard drills outside of fire and tornado drills, 2) identify hazards specific to the district or school, 3) develop roles and responsibilities for all stakeholders- including community partners, and 4) develop special procedure for recovering from an incident that includes addressing extended school closure and continuing student education. By implementing and creating crisis preparedness plans that address a wide range of crises and responses to those crises in every phase of crisis management, districts will become more effective in handling a crisis.

Recommendations for future research. Recommendations for further study would be to replicate this study in other states to fill a void that exists in the body of research surrounding superintendents' perceptions of crisis preparedness in public school districts. Results may vary depending on where districts are located. The study could also be replicated within one school district. By focusing on one school district and both building and district level administrators, more detailed information for improvement

may be discovered. Also, both strengths and weaknesses of the district's current crisis development plan could be critiqued.

Another recommendation would be to use different employee groups as the focus population, in particular students, parents, teachers, staff, and law enforcement. The feedback from various subgroups would help provide comprehensive training for all. Students could give feedback on what is lacking with training for students. Usually, students only participate in drills but would not necessarily know what to do if they were on schools when school is out of session. Parents could provide insight on what they need to do to be of assistance in the middle of a crisis and how to best communicate with them about the crisis. Teachers' perceptions could provide a greater understanding of what needs to occur to address secondary issues that may arise in the middle of a crisis.

Further research needs to be conducted when eliciting the perspective of students; As noted in the GAO (2007) study, crisis plans need to consider the specific needs of students with disabilities. It is recommended that research be conducted with students with special needs and the staff who work with them. It would be beneficial to explore the perceptions of populations of staff who work with students who have special needs as well as students with special needs who are dependent on others in crises. For example, students with mental, medical, or mobility disabilities may not be considered with current crisis preparedness plans. It would be interesting to find out what is already in place to accommodate the needs of individuals during a crisis. Evaluating or creating protocols for addressing medical issues in the middle of a lockdown, or code red, evacuation would also be useful.

A similar study could also involve a qualitative approach. Superintendents could be interviewed, which would allow for open-ended questions with responses that may have offered greater insight into what especially needed to be done to improve crisis preparedness in public schools in Kansas and Missouri. A qualitative study could also lend itself to examining the perceptions of a smaller group of participants within one district at various levels of district leadership.

Additional studies that focus on how to relocate or evacuate students during natural disasters could yield valuable information. For example, this type of study could help minimize the interruption of students' education. Currently, districts often shut down buildings indefinitely until a crisis is under control because they have not planned for how to relocate students.

Studying the perceptions of security directors could provide the most insight due to their responsibility for oversight of district security. Security directors in public school district would know specifics about what the district needs to improve and where efforts to improve safety training should be invested. Overall, it is ultimately their responsibility to assist the district in making crisis preparedness plans and safety training as effective as possible.

Concluding remarks. This study offers contributions to the field of education by analyzing crisis preparedness practices. Improvement strategies can be formulated and implemented based on areas of concern identified. Crisis preparedness plans and additional safety training for all areas of crisis preparedness can be addressed with each district and focusing on a more collaborative approach may enable a more effective response to specific events (DOE, 2007). The crisis preparedness training offered to

educators in Kansas and Missouri at the time of this study was inadequate or non-existent. A paradigm shift needs to occur in how public-school districts view their commitment to prioritizing crisis prevention, allocating sufficient funding for crisis prevention, and providing sufficient training to those charged with the care of students in educational settings.

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Appendices

Appendix A: Request for Permission to Use Survey

Dear Dr. Alba,

Hello, my name is Janet Carter, and I am a student at Baker University in Overland Park, Kansas. After reading your dissertation, my interest was sparked to pursue a similar topic for my dissertation. I am requesting permission to use and/or modify parts of the survey used in your dissertation. Please contact me via email if you are willing to grant me permission. Thank you very much in advance for your consideration of my request.

Thank you,

Janet Carter

janetcarter512@gmail.com

(816) 605-2504

Gmail <dalba72@gmail.com>

Wed, Jul 20, 2016 at 5:37 PM

To: Janet Carter <janetcarter512@gmail.com>

Hello Janet,

I would be honored to grant you permission to use portions of the survey (or in its entirety) for your study.

Please feel free to contact me at 401-578-7981 or dalba72@gmail.com if you have any questions about the research. I'd be more than happy to assist you.

Sincerely,

David Alba

[Quoted text hidden]

Appendix B: Superintendents' Perceptions of School Safety Survey

Superintendents Perceptions of School Safety Survey**Perceptions of School Safety**

Thank you for volunteering to participate in the Perceptions of School Safety Survey. This survey consists of 63 items. You should be able to complete the entire survey in approximately 15 to 20 minutes. Your responses will remain anonymous and will be combined with the responses of other superintendents. Data from this survey will be used to extend research into the current practices and policies in the area of school safety.

1. District size

- ☐ 0 - 500
- ☐ 501 - 5,000
- ☐ over 5,000

2. State

- ☐ Kansas
- ☐ Missouri

Superintendents Perceptions of School Safety Survey

Access & Identification

3. How often were the following practices in place in your district buildings during the 2016-2017 school year?

	Never	Rarely	Occasionally	Often	Always
Require all visitors to report directly to the main office upon entering a building	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control access to the school buildings during school hours by having all external doors locked	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use a buzzer system to allow visitor access to a building	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use one or more security cameras to monitor external doors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Require students to wear picture ID badges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Require faculty and staff to wear picture ID badges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Require central services personnel to wear picture ID badges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Require visitors (parents, guests, etc.) to wear badges or stickers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Require visitors to enter buildings through one door for controlled access	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use of hand wands to detect weapons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Superintendents Perceptions of School Safety Survey**Internal Security**

4. How often were the following practices in place in your district buildings during the 2016-2017 school year?

	Never	Rarely	Occasionally	Often	Always
Use one or more security cameras to monitor interior portions of the buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Perform one or more random sweeps for contraband (e.g., drugs or weapons)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Require students to use clear book bags or ban book bags during the school day	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide all teachers with interior door key(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide all support personnel (paraprofessionals, itinerants, aides) with interior door keys(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide all substitute teachers with interior door key(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have all interior door keys capable of locking and unlocking all interior doors within the building (master key)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have full-time School Resource Officer (SRO) or Security Officer assigned to school buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have a full-time School Nurse (RN, LPN, or Medication Aide) assigned to school buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide two-way radios to any staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Superintendents Perceptions of School Safety Survey

Safety Preparedness Development

5. During the 2016-2017 school year, how often was it a practice in your district to do the following?

	Never	Rarely (2 years or later)	Occasionally (annually)	Often (bi-annually)	Always (quarterly)
Refined the district's emergency/crisis plan utilizing research-based, best practice guidelines (e.g., National Incident Management System [NIMS] or The U.S. Department of Education Guide on School Crisis Planning)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reviewed the district's emergency/crisis plan in collaboration with local first responders (police and/or fire rescue personnel)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reviewed the district's emergency/crisis plan with teachers/staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Took any courses or training specific to school crisis preparedness (including yourself and/or any faculty/staff)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Superintendents Perceptions of School Safety Survey

Safety Preparedness Activities: Students

6. During the 2016-2017 school year, how often were students informed or drilled on the following written components of your district's crisis preparedness plan?

	Not part of the written plan	Never (in the plan but never drilled)	Occasionally (at least once annually)	Often (1-4 times annually)	Constantly (5 or more times annually)
Fire	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural disasters (e.g., tornadoes, earthquakes, or floods)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Armed intruder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bomb threats or incidents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chemical, biological, or radiological threats or incidents (e.g., release of mustard gas, anthrax, smallpox, or radioactive materials)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suicide threat or incident	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The U.S. national threat level is changed to Red (Severe Risk of Terrorist Attack) by the Department of Homeland Security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pandemic flu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Superintendents Perceptions of School Safety Survey

Safety Preparedness Activities: First Responders

7. During the 2016-2017 school year, how often were first responder personnel (e.g., police or fire) involved with drills of the following written components of your district's crisis preparedness plan?

	Not part of the written plan	Never (in the plan but never drilled)	Occasionally (at least once annually)	Often (1-4 times annually)	Constantly (5 or more times annually)
Fire	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural disasters (e.g., tornadoes, earthquakes, or floods)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Armed intruder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hostages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bomb threats or incidents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chemical biological, or radiological threats or incidents (e.g., release of mustard gas, anthrax, smallpox, or radioactive materials)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suicide threat or incident	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The U.S. national threat level is changed to Red (Severe Risk of Terrorist Attack) by the Department of Homeland Security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pandemic Flu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Superintendents Perceptions of School Safety Survey

Levels of Preparedness

8. During the 2016-2017 school year, how prepared do you feel your district was with regards to the following?

	Not at all prepared	Somewhat prepared	Prepared	Well prepared	Extremely well prepared
Having a disaster plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conduction of drills and exercises	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being trained in emergency response	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having appropriate emergency equipment and supplies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capacity to shelter students for at least 24 continuous hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adequate storm shelter or area of safe refuge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall preparedness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Superintendents Perceptions of School Safety Survey

Influences on Efforts towards Safety Preparedness

9. To what extent do the following factors influence your efforts to maintain a safe and secure school district?

	Not at all	Minor influence	Influence	Some influence	Major influence
Lack of adequate teacher training in classroom management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Likelihood of complaints from parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of teacher support for school policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of parent support for school policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of board of education support for school policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fear of litigation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inadequate funds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fear of federal or state reprisal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Federal or state policies on disciplining special education students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Federal or state policies on discipline and safety other than those for special education students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix C: IRB Request



SCHOOL OF EDUCATION
GRADUATE DEPARTMENT

IRB PROTOCOL NUMBER _____

Date: _____

(IRB USE ONLY)

IRB REQUEST

Proposal for Research

Submitted to the Baker University Institutional Review Board

I. Research Investigator(s) (Students must list faculty sponsor first)

Department(s) School of Education Graduate Department

Name	Signature	
1. Dr. Susan Rogers	<u>Susan Rogers</u>	Major Advisor
2. Dr. Margaret Waterman	<u>Margaret Waterman</u>	Research Analyst
3. Dr. James Robins		University Committee Member
4.		External Committee Member

Principal Investigator: Janet Carter Janet Carter
 Phone: (816) 504-2504
 Email: janetcarter512@gmail.com
 Mailing address: PO Box 492 Lee's Summit, MO 64063

Faculty sponsor: Dr. Susan Rogers
 Phone: 785-230-2901 (mobile) 913-344-1226 (office)
 Email: srogers@bakeryu.edu

Expected Category of Review: ___ Exempt **X** Expedited ___ Full

II: Protocol: (Type the title of your study)

Kansas and Missouri Superintendents' Perceptions of Crisis Preparedness

Summary

The following summary must accompany the proposal. Be specific about exactly what participants will experience, and about the protections that have been included to safeguard participants from harm. Careful attention to the following may help facilitate the review process:

In a sentence or two, please describe the background and purpose of the research.

The population of the study will include superintendents from Kansas and Missouri. The purpose of the study will be to determine whether there was a difference in the perceptions of Kansas and Missouri superintendents on crisis preparedness as well determine whether the difference in perceptions was affected by district size and state (Kansas and Missouri).

Briefly describe each condition or manipulation to be included within the study.

There will be no conditions or manipulations included within this study.

What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.

The questionnaire will include questions relating to district's preparedness in the following areas: access and identification, internal security, safety preparedness development, safety preparedness activities: students, safety preparedness activities: first responders, levels of preparedness, and influences on efforts toward safety preparedness.

Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.

Participants will not encounter the risk of psychological, social, physical, or legal risk.

Will any stress to subjects be involved? If so, please describe.

Participants will not be subjected to any stress.

Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

Participants will not be deceived or misled in any way

Will there be a request for information, which subjects might consider to be personal or sensitive? If so, please include a description.

Participants will not be asked for information that the might consider to be personal or sensitive.

Will the subjects be presented with materials, which might be considered to be offensive, threatening, or degrading? If so, please describe.

Participants will not be presented with materials that might be considered to be offensive, threatening or degrading.

Approximately how much time will be demanded of each subject?

Each participant may be expected to spend 15 to 20 minutes completing the survey.

Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information, which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

The population of the study will include superintendents from Kansas and Missouri. The superintendents will be sent an email requesting their participation in the study (see attached letter).

What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

The solicitation letter includes the following information:

The survey is completely anonymous. Your privacy is important; your responses will be combined with other participants' responses and reported in summary form. Information reported will not indicate individual participants or school districts. There is no penalty should you choose not to participate or respond to all the items. Your completion and submission of the survey will indicate your consent to participate and permission to use the information you have provided for my study.

How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

No written consent form will be used. The email includes that the participants' completion of the survey indicates their consent to participate.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No aspect of the data will be made part of any permanent record that can be identified with the participant.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.

The fact that a subject did or did not participate in this study will not be made part of any permanent record available to a supervisor or employer.

What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?

Identifiable information such as participants' names and school district will not be solicited.

Once data is downloaded from SurveyMonkey, data will be stored on a laptop. The researcher is the only person to have access to this laptop.

Survey data will be kept for one year after the completion of the study.

The data will be destroyed at that time.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

No risks will be involved in the study.

Will any data from files or archival data be used? If so, please describe.

No data from files or archival data will be used. Only the data compiled from the survey will be used.

April 1, 2017

Dear Superintendent,

My name is Janet Carter. I am a teacher in Overland Park, KS and a doctoral candidate at Baker University. I am currently conducting research to determine the perceptions of superintendents related to crisis preparedness (access & identification, internal security, safety preparedness development, safety preparedness activities: students, safety preparedness activities: first responders, levels of preparedness, and influences on efforts toward safety preparedness). I am surveying all superintendents in the state of Kansas. I understand that this is a very busy time of year; the survey should take no more than 15 minutes of your time to complete.

The survey is completely anonymous. Your privacy is important; your responses will be combined with other participants' responses and reported in summary form. Information reported will not indicate individual participants or school districts. There is no penalty should you choose not to participate or respond to all the items. Your completion and submission of the survey will indicate your consent to participate and permission to use the information you have provided for my study. Please click on the link below to take the online survey.

<https://www.surveymonkey.com/r/G76DVS3>

If you have any questions or if you would like a copy of the results of this study, you may contact me via email at janetcarter512@gmail.com. Your participation in the survey is extremely important to the completion of my degree. If you have any questions regarding this research, please contact me. Your input is valuable. Thank you for your time.

Janet Carter
Ed.D. Candidate
Baker University Graduate School of Education
janetcarter512@gmail.com

Appendix D: IRB Approval Letter



Baker University Institutional Review Board

April 20, 2017

Dear Janet Carter and Dr. Rogers:

The Baker University IRB has reviewed your research project application and approved this project under Expedited Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at EMorris@BakerU.edu or 785.594.7881.

Sincerely,

Erin Morris PhD
Chair, Baker University IRB

Baker University IRB Committee
Joe Watson PhD
Nate Poell MA
Susan Rogers PhD
Scott Crenshaw