Kansas Principals' Perceptions of Crisis Preparedness

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Abstract

Explored in this study were Kansas principals' perceptions of 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. Data for this study were collected from city, suburban, town, and rural principals in Kansas. Results indicated that principals perceived crisis preparedness activities associated with access and identification were present occasionally or often in their buildings during the 2019-2020 school year. However, during the 2019-2020 school year in their buildings, Kansas principals perceived that crisis preparedness activities associated with internal security were occasionally present in their buildings, crisis preparedness development associated with safety preparedness were not practiced bi-annually or quarterly, students were never or occasionally informed or drilled on the components of the school's crisis preparedness plan, first responders were never or occasionally involved with drills on the components of the school's crisis preparedness plan, their schools were not well or extremely prepared for a crisis, and safety preparedness efforts to maintain a safe and secure school were slightly to somewhat influenced by external and internal factors. The results related to whether building level or location affected Kansas principals' perceptions of crisis preparedness were mixed. Building level affected Kansas principals' perceptions of crisis preparedness regarding access and identification and internal security in their buildings during the 2019-2020 school year. Finally, the results indicated that building location affected Kansas principals' perceptions with regards to access and identification, internal security,

preparedness development, and external and internal factors during the 2019-2020 school year. Principals may use results from this study when reviewing, training, and updating their specific crisis preparedness plans.

Dedication

This dissertation is dedicated to my Grandpa and Grandmother Counce. Though you could not physically be here to see me make it to the end of this journey, I know you are both with me in spirit. Love you!!!!

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Chapter 1

Introduction

Educational institutions are meant to provide a safe learning environment with little to no interruptions. However, schools across America experience school crisis events in various forms. The National Education Association (NEA, 2018) defined a school crisis as "any traumatic event that seriously disrupts coping and problem-solving abilities of students and school staff" (p. 1). Crisis events will continue to occur in schools. Educational leaders are taking measures to provide all children with a safe environment (American Association of School Administrators [AASA], 2018).

Leaders in Washington D.C. have addressed school crises by mandating that all schools have readily available safety plans. National leaders have realized when dealing with crisis events, "there is no universal school safety plan…that is why the Commissions work and recommendations focus on a variety of school sizes, structures, and geographic locations" (DeVos et al., 2018, p. 1). Therefore, building-level leaders adhere to national recommendations by ensuring all staff and students receive adequate training in dealing with traumatic situations.

At the time of this study, educational leaders were navigating a new era of school safety issues. The new millennium brought about numerous school shootings. These horrific events caused administrators to focus on intruder safety drills. However, during the middle of this study, a worldwide pandemic shifted the focus of crisis preparedness in schools. "On the issue of school safety, there is always a new threat, a new technology, or a new strategy to take into consideration" (Stover, 2017, para. 3).

Background

"Planning for, preventing, and responding to crisis events must become a part of an educator's daily work" (Klinger & Klinger, 2018, p. 16). Educational leaders strive to create safe, orderly, and welcoming learning environments because those are critical to high student achievement (Cowan, Vaillancourt, Rossen, & Pollitt, 2013). However, crisis events sometimes alter the school-learning environment.

Prior to 1996, school leadership programs failed to provide common certification requirements. In 1996, The Wallace Foundation sought to change principal preparatory programs by investing in the development of the Interstate School Leadership Licensure Consortium (ISLLC) policy standards (Council of Chief State School Officers, 2008). Before the introduction of ISLLC standards, "the typical administrator certification program [did] not devote specific attention to shootings, suicide, terminal illness, and natural disasters" (Lichtnstein, Schonfel, & Kline, 1994, para. 12). Since the implementation of ISLLC standards, state and district leaders are provided with guidance on what school leaders should know and do (Center on Great Teachers & Leaders at American Institutes for Research, 2020). ISLLC standards allowed preparatory programs to revamp coursework as society evolves, allowing school leaders to address leadership roles based on societal and educational needs. In 2018, the ISLLC standards were merged into the National Educational Leadership Preparation (NELP) Program Recognition Standards (National Policy Board for Educational Administration (NPBEA), 2018).

Educational leadership has become more of a collaborative effort, and administrators are being held to higher standards than their predecessors (NPBEA, 2018).

Therefore, the NELP leadership standards serve as guidance for effective leadership. "The NELP building-level standards are appropriate for advanced program at the master, specialist, or doctoral level that prepare assistant principals, principals, curriculum directors, supervisors, and other education leaders in a school building environment" (NELP, 2018, p. ii). NELP standards encourage principals to collaborate with multiple groups of people regarding crisis preparedness because leading a building with a team-focused approach makes it smoother when dealing with traumatic events (NPBEA, 2018).

Educational leaders have noticed traumatic events continue to occur; therefore, federal legislation aligns with ISLLC and NELP standards. The "Every Student Succeeds Act emphasized that schools should improve school climate, safety, and access to high quality comprehensive learning supports" (NEA, 2017, p. 7). Since Kansas schools are not immune to crises, educational leaders in Kansas have been working on safety and security plans. "Many schools have dedicated portions of their school bond issues for enhanced security and Federal Emergency Management Agency (FEMA) approved safe rooms" (Kansas Association of School Boards (2018, para. 11). As school districts update their buildings for potential crisis events, additional training and simulations must occur because "many educators perceive their ability to respond to a school emergency as minimal or insufficient" (Rinaldi, 2017, p. 18).

School safety is a top priority for all educational systems. "The unfortunate reality is, however, that school districts in this country may be touched either directly or indirectly by a crisis of some kind at any time" (U.S Department of Education [USED], 2007a, p. 1.2). Public schools in Kansas include a variety of municipalities: cities,

suburban areas, towns, and rural areas. Therefore, emergency preparedness might drastically differ based on the location of a school.

In December 2019, the Kansas State DE (KSDE) indicated 1,300 public schools were in operation. The number of schools by level reported by KSDE (2019) was: 350 high schools, 13 junior high schools, 203 middle schools, 734 elementary schools. According to the 2018-2019 KSDE state headcount, enrollment in Kansas public schools was 492,102 students, of which 239,203 were females, and 252,899 were males (KSDE, 2019). Leading these Kansas students were 1,197.8 full-time principals and 656.8 full-time assistant principals (KSDE, 2019). Of these school leaders, 676.9 principals and 119.1 assistant principals were at the elementary level (KSDE, 2019). Administrators at the junior high and middle school level included 240.0 principals and 199.2 assistant principals (KSDE, 2019). In the state of Kansas, 280.9 principals and 338.5 assistant principals led Kansas high schools. Administrative roles containing decimals indicate principals who served in multiple buildings or positions.

Building level leaders in Kansas are tasked with protecting all students and staff by holding mandatory safety drills. "Under current law, public and private schools and educational institutions, except colleges and universities, are required to conduct at least one fire drill each month and three tornado drills throughout the school year during school hours" (Campbell, 2018, para. 2). In April 2018, Kansas State Legislators introduced Senate Bill 458 (SB 458), which served as an amendment to the 2017 SUPP. 31-133 law. The amendment required at least 16 emergency preparedness drills to be conducted by schools each year. The proposed bill required four fire drills, three tornado drills, and nine crisis drills that included a combination of intruder response drills and

lockdown drills (Kansas State Legislature, 2018). SB 458 was sent to the Committee on Education, but in May 2018, SB 458 died. Legislatures continued to collaborate on safety drills that would best serve students in the state of Kansas. In April 2019, Gov. Laura Kelly, with support from the Kansas Association of School Boards and the State Fire Marshal's office, signed Senate Bill 128 into law: schools are mandated to annually hold nine drills (four for fire, two for tornadoes, and three for crisis lockdown scenarios) (Shaar, 2019). Safety drills included in Senate Bill 128 were enacted at the beginning of the 2019-2020 school year (Shaar, 2019).

According to the National Oceanic Atmospheric Administration (2008), a school's preparedness plan "should address traditional crisis and emergencies, such as fires, severe weather, school shootings, and accidents, as well as biological, radiological, chemical, and terrorist activities" (p. 5). The May 2011 tornado that destroyed a Joplin, Missouri high school is an example of how one major weather event drastically altered the learning environment. A Category EF5 tornado occurred at the end of the school year, and Joplin High School obtained severe damage. The superintendent decided to cancel the remaining 12 days of school and focus on what needed to occur to reopen schools for the upcoming academic year (Kisch, 2012). In December 2015, Cassville, Missouri, experienced a variety of flooding events that impacted their school year (AASA, 2018, p. 1). The school district was declared a FEMA disaster area and sought FEMA funding to help rebuild. Numerous schools across the United States have dealt with weather-related events such as flooding, hurricanes, and wildfires. According to Klinger & Klinger (2018), "It is statistically much more likely that a school will face less dramatic but equally significant crisis events such as the death of a student, medical

emergency, or a community-based disaster such as human-caused, natural, or technological" (pp. 19-20). Since catastrophic events occur with little to no notification, school leadership teams should ensure a crisis preparedness plan is readily available.

Crisis preparedness also includes preparing for violent incidents among the student body. Events include fighting, bullying, threats with weapons, electronic aggression, and gang-related violence (Centers for Disease Control [CDC], 2017). After numerous high-profile active shooter events, school resource officers (SRO) have been introduced to schools (Klinger & Klinger, 2018, p. 8). Although these internal security officers serve to deter violent outbursts, school leaders should also focus on creating a "culture in the building where safety issues are considered year-round by all staff" (Klinger & Klinger, 2018, p. 61). If schools actively prepare for a crisis event, students and staff might be prepared should an emergency interrupt the school day. Providing a safe learning environment is a schoolwide effort, and "the importance of a well-written, comprehensive Emergency Operations Plan cannot be overstated" (Klinger & Klinger, 2018, p. 33).

Active shooter situations (or school intruders) are traumatic events occurring in American schools. According to the 2018 School Safety Report, "Approaches to address active shooter incidents at schools must be specific to each school's unique environment" (p. 141). Schools in Kansas range in size, level, and location. A universal guide to an active shooter drill may not fit the various schools in Kansas. Therefore, district leaders in Kansas have implemented intruder drills and protocols that best fit their school district.

Pandemics also alter the learning environment. The spring semester of 2020 allowed principals to assess their buildings' crisis preparedness levels due to the global

pandemic COVID-19 (also known as the coronavirus). According to Sauer, "A newly identified coronavirus, SARS-CoV-2, has caused a worldwide pandemic of respiratory illness, called COVID-19" (2020, para. 1). COVID-19 rapidly spread around the world and ultimately forced U.S. schools to close in March 2020. "To slow the spread of Covid-19, governors in 46 states have closed more than 91,000 U.S. public and private schools, affecting more than 50 million school students" (Bailey, 2020, para. 1). As the 2020 summer break wound down, school leaders collaborated to create guidelines on what school re-openings should entail. According to the CDC, "As you [principals] create and update your preparedness plans, work with your local health officials to determine the most appropriate plan and actions for your school or program" (CDC, 2020, para. 2).

Statement of the Problem

Schools in the United States have been encountering a wide array of crises. "Besides natural disasters such as earthquakes, fires, and pandemic diseases, students experience violence and death related to suicide, gang activity, snipers, hostage-taking, and rape" (Center for Mental Health in Schools at UCLA, 2016, p. 5). Nationwide, schools have addressed crisis preparedness by aligning school safety measures with USDE recommendations. "Across all districts, > 90% collaborated on plans with staff members from individual schools within the district, local fire departments, and local law enforcement agencies" (CDC, 2018, para. 2).

Administrators are the leaders tasked with preparing schools to handle crisis events effectively. "Principals' reports of crime, violence, and the general climate in their schools play an important role in providing a national picture of school crime and

safety" (National Center for Education Statistics [NCES], 2017a, p. 1). Addressing school safety includes analyzing access to schools, identifying every occupant of a building, analyzing internal security measures, observing online social media activity, examining students' behaviors, and investigating a myriad of logistical planning. Principals receive similar instructions from state leaders and district-level leaders, but perceptions of crisis preparedness may differ between building level and building location. Inconsistencies in emergency preparedness could be problematic if a Kansas school encounters a traumatic event.

Purpose of the Study

The purpose of this study was to determine perceptions of Kansas principals with regards to crisis preparedness within their building. The first purpose of this study was to determine principals' perceptions of crisis preparedness planning related to access and identification, internal security, safety preparedness, crisis preparedness plan, drills on crisis preparedness plan, and external and internal factors. The second purpose of this study was to determine if crisis preparedness perceptions of principals varied among school levels (elementary, middle school, and high school) and school locations (city, suburban, town, and rural).

Significance of the Study

Educational institutions are places students should be able to feel safe, not afraid. However, schools experience traumatic events. Disturbing events "can range in scope from natural catastrophes such as tornadoes or floods, to emergencies such as the death of a student, or man-made disasters such as school shootings or suicides" (Studer & Salter, 2010, p. 1). Since schools continue to experience horrific events, the USDE provides

funding for schools to address safety concerns. Therefore, studying crisis preparedness perceptions might help building leaders evaluate their schools' readiness should a traumatic event occur.

Results from this study may be used to enhance safety preparedness measures for Kansas school buildings. Actions taken may include professional development sessions or hands-on training on how to address traumatic events effectively. School leaders might approach an emergency more efficiently if they are aware of the current level of crisis preparedness in their buildings.

Delimitations

To intensify the focus of research, Roberts (2004) recommended that researchers set self-imposed boundaries (delimitations) to "narrow the purpose and scope of the study" (p. 128). The following delimitations were placed on this study:

- The researcher limited the study to public school principals in the state of Kansas.
- The period of data collection occurred during the 2019-2020 school year.
- An online survey instrument (Google Forms) was utilized for data collection.

Assumptions

Lunenburg and Irby (2008) defined assumptions as the "postulates, premises, and propositions that are accepted as operational for purposes of the research" (p. 135). The following assumptions were made:

- Principals who completed the online survey had sufficient knowledge of the topic and understood the survey items.

- Principals who participated in the study answered all items accurately and honestly.
- The online survey provided accurate data on principal perceptions of crisis preparedness.

Research Questions

This study was conducted to address the following research questions regarding Kansas principals' perceptions of crisis preparedness:

RQ1. To what extent do Kansas principals perceive that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year?

RQ2. To what extent are Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year affected by school level and location?

RQ3. To what extent do Kansas principals perceive that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year?

RQ4. To what extent are Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year affected by school level and location?

RQ5. To what extent do Kansas principals perceive that crisis preparedness development associated with safety preparedness was practiced in their buildings during the 2019-2020 school year?

RQ6. To what extent are Kansas principals' perceptions that crisis preparedness development associated with safety preparedness was practiced in their buildings during the 2019-2020 school year affected by school level and location?

RQ7. To what extent do Kansas principals perceive that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year?

RQ8. To what extent are Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year affected by school level and location?

RQ9. To what extent do Kansas principals perceive that first responder personnel were involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year?

RQ10. To what extent are Kansas principals' perceptions that first responder personnel were involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year affected by school level and location?

RQ11. To what extent do Kansas principals perceive that their school was prepared for a crisis during the 2019-2020 school year?

RQ12. To what extent are Kansas principals 'perceptions that their school was prepared for a crisis during the 2019-2020 school year affected by school level and location?

RQ13. To what extent do Kansas principals perceive that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year?

RQ14. To what extent are Kansas principals' perceptions that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year were affected by school level and location?

Definition of Terms

According to Lunenburg and Irby (2008), key terms used throughout a researcher's dissertation should be defined. For this study, the following terms are defined.

City. According to Ratcliffe, Burd, Holder, and Fields (2016), a city is a territory inside an urbanized area (50,000 or more people) and a principal city.

Disaster. According to Carroll (2001), "A disaster is an emergency considered severe enough by local government to warrant the response and dedication of resources beyond the normal scope of a single jurisdiction or branch of local government" (p. 467).

Emergency preparedness. In the Stafford Act, emergency preparedness was defined as activities and measures undertaken that are designed to prepare for, deal with, and restore society should a traumatic event occur (Robert T. Stafford Disaster Relief and Emergency Assistance Act, 2018, p. 59).

Rural. According to Ratcliffe et al. (2016), a rural territory "is not urban – that is, after defining individual urban areas, rural is what is left" (p. 1).

Suburban. According to Ratcliffe et al. (2016), a suburban territory inside an urbanized area (50,000 or more people) and outside a principal city.

Town. Ratcliffe et al. (2016) defined a town as a territory inside an urbanized cluster (2,500-49,999 people).

Organization of the Study

This study is comprised of five chapters. Chapter 1 introduces the background, problem statement, purpose of the study, the significance of the study, delimitations, assumptions, research questions, and definition of terms. Chapter 2 contains a review of the literature regarding the evolution of crisis preparedness in schools and perceptions of crisis preparedness. Chapter 3 includes the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations of the study. Presented in Chapter 4 are the descriptive statistics and the results of the hypothesis testing. Chapter 5 includes the study summary, findings related to the literature, and the conclusions.

Chapter 2

Review of the Literature

"Failure to prepare for a crisis leads to failure to effectively manage the unpredictability of such situations requiring immediate response" (Adams & Kritsonis, 2006, p. 2). Tragic events can occur at educational institutions, and according to Lynch (2013), "Schools have crisis plans; however, school personnel do not regularly practice the plans to determine their effectiveness" (p. 102). Building leadership teams are tasked with preparing staff and students on how to deal with crisis situations. Although it is almost impossible to prepare for all crisis events, administrators can be adequately prepared to take appropriate action and adjust plans as needed (Cowan & Rossen, 2013). According to MacNeil and Topping (2007), "Last-minute interventions carry their own degree of risk," and "early intervention" is key to preventing a crisis event (p. 72). It is an administrative responsibility to ensure schools practice crisis preparedness drills (MacNeil & Topping, 2007). Over the decades, numerous traumatic events have shaped how schools prepare and respond to disastrous events. Covered in this chapter are the evolution of crisis preparedness in schools and the perceptions of crisis preparedness.

Evolution of Crisis Preparedness in Schools

"Safety is the foundation upon which all the other work of education takes place" (Klinger & Klinger, 2018, p. 57). Over the decades, schools have created emergency operation plans (EOPs) because of traumatic events that have occurred at schools. Schnabolk (2012) argued, "Each incident [mass school shooting] brings a wave of sometimes newly minted experts who offer up all types of remedial solutions. Some are

ridiculous; most are simply ineffective" (para. 3). Solutions to preventing school crises might vary from school to school, but school leaders follow EOPs during a crisis.

Teachers may argue that it is their job to teach and not become safety providers. As Klinger and Klinger (2018) noted, teachers have indicated they want to help enforce safety measures but do not want to become police officers while doing their jobs. Administrators are tasked with keeping their buildings safe, and teachers are tasked with teaching students. However, both building leaders and teachers pose as the first line of protection when law enforcement officers are not present. Administrators are tasked with following crisis preparedness guides when traumatic events unfold. Each school has its own set of preparedness measures, and each state has a specific set of mandates on how to practice for crises. Tragic events have occurred over the years, and these events have caused teachers and administrators to shift their views on crisis preparedness.

Fire drills. Fire drills were not always considered a schoolwide emergency, and schools have not always practiced fire safety drills. Prior to 1958, protocols on what to do in a fire emergency were unknown because "fire code regulations and mandated fire-evacuation training drills [were] enacted after this [Our Lady of the Angels] tragedy" (Klinger & Klinger, 2018, p. 59). Due to lack of fire emergency training, 95 occupants (mostly people on the third floor) died in the 1958 Our Lady of the Angels school fire. Unfortunately, students and teachers did not have an escape plan. This lack of emergency preparedness led to many deaths. After the 1958 fire, schools implemented mandatory schoolwide fire drills.

Tragic events such as the 1958 fire are something no school wants to endure. Therefore, laws have been enacted in Kansas that require all schools to hold mandatory

fire drills. In 1979, the Kansas legislature created laws that govern both fire and tornado drills (K.A.R.22-18-2), and schools in Kansas still adhere to fire and tornado safety drills. In 2018, Kansas fire and tornado safety drills were updated as follow: "emergency preparedness drills shall include at least: (1) four fire drills; (2) three tornado drills; and (3) nine crisis drills" (Colyer & Jorgensen, 2018, para. 3). By practicing fire preparedness drills, staff and students might exude more confidence if they ever need to escape a burning building.

Natural disasters. Fire drills are one example of emergency preparedness drills that occur during the school day. Other types of emergencies, such as natural disasters, also require mandatory drills. The Department of Homeland Security (2018) defined natural disasters as severe weather that has the potential to pose a significant threat to human health and safety, property, critical infrastructure, and homeland security. Tornadoes are an example of a natural disaster that impacts Kansas schools. "In the United States, there are two regions with a disproportionately high frequency of tornadoes. Florida is one and 'Tornado Alley' in the south-central United States is the other" (National Centers for Environmental Information, 2019, para. 1). Specific boundaries of Tornado Alley are debatable. However, most scientists agree that Texas, Oklahoma, Kansas, and Nebraska make up the largest portion of Tornado Alley (FEMA, 2007). Since Kansas lies in the center of Tornado Alley, there are high chances of a tornado impacting the school learning environment. Therefore, tornado drills are mandatory in all Kansas schools (K.A.R.22-18-2, 1979).

On May 3, 1999, two schools in Wichita, KS, were impacted by a series of tornadoes (FEMA, 2002, p. 3). Leaders in Wichita thought hallways were the safest

place for children to seek shelter in the event of a tornado. However, the May 3 tornado determined those school hallways were not the safest places since the hallways "suffered extensive damage….and if children had been present, injuries or deaths could have occurred" (FEMA, 2002, p. 4). Damage caused by the 1999 tornado prompted school leaders to seek alternative safety protocols. FEMA teamed with Kansas leaders and collaborated to create school shelters that spurred "the implementation of a broader shelter construction program that involved private and public schools in other areas of the state" (FEMA, 2002, p. 14).

School shootings. School shootings are also crises occurring in schools; therefore, schools now complete mandatory active shooter drills. "An active shooter is an individual actively engaged in killing or attempting to kill people in a confined and populated area" (Alice Training, 2021, para. 1). Schools in the United States have experienced numerous active shooter crises. One of the earliest school shootings took place on "January 29, 1979, at Grover Cleveland Elementary School in San Diego, CA" (DeVos et al., 2018, p. 5). Two adults, eight students, and one police offer were wounded during that event. Unfortunately, many more school shootings have occurred since this incident. The high-profile 1999 shooting at Columbine High School in Colorado caused school leaders to begin implementing intruder drills. Fifteen lives were lost on that day, and government agencies created laws requiring schools to prepare for deadly intruders. However, school shootings continue to occur. "On February 14, 2018, a former student walked into Marjory Stoneman Douglas High School in Parkland, FL, and began firing. He murdered 17 people and wounded many more" (DeVos et al., 2018, p. 5). Survivors of this horrific event spread the importance of school safety by touring

the United States and discussing how to improve school safety among students and state leaders.

After the Marjory Stoneman Douglas High School event, federal legislators formed The Federal Commission on School Safety, which was "designed to both research and recommend solutions to advance the safety of our schools" (DeVos et al., 2018, p. 1). However, establishing safety committees and creating legislation were not strong enough measures to put an end to school shootings. Numerous schools experienced gun violence in 2019, with the most fatalities (three dead, including the shooter) occurring on November 14, 2019 at Saugus High School in Santa Clarita, CA. The year 2019 ended with tragic events because two different school shootings occurred in Wisconsin, one in Waukesha on December 2, 2019 and the following day, a shooting occurred in Oshkosh (Sanchez & Watts, 2019).

School shootings were one of many school crises that occurred while conducting this study. The year 2020 began with five school shootings; four of these shootings occurred in Texas. Blake (2020) indicated an "18-year-old shot at a Dallas ISD basketball game last week died Saturday from his injuries" (para. 1). The Texas incident was one of numerous school crises that made national headlines. However, gun violence has impacted several other schools since the turn of the millennium. Despite the number of violent school events, the Federal Commission on School Safety continues to search for resolutions to end school shootings.

Members of the Federal Commission on School Safety held numerous meetings and listening sessions to identify methods that would better protect schools. Schools from this research were of various "school sizes, structures, and geographic locations . . .

[and results indicated] there is no universal school safety plan that will work for every school across the country" (DeVos et al., 2018, p. 2). School leaders also determined that schools should collaborate with state legislators, teachers, parents, and students to address the specific needs of their building (DeVos et al., 2018). Members of the Federal Commission on School Safety made the following five recommendations:

> 1) states should provide funding for each school to provide preparedness training for active shooters, 2) teacher preparedness should include active shooter training as a part of the teacher certification requirements, 3) schools should conduct active shooter training on a regular basis, 4) schools should maintain appropriate medical equipment, and 5) schools should have effective communication systems that also includes law enforcement officers (DeVos et al., 2018, p. 151).

National leaders, state leaders, and school leaders take steps to curtail future crises by continually meeting about school safety. Members of the Federal Commission on School Safety conclude that preventing school violence is a collective effort of "parents, teachers, the media, health care professionals, entertainment industry leaders, and law enforcement" (DeVos et al., 2018, p. 155). Local leaders best understand their communities; therefore, the Commission recommended that school districts collaborate with their communities to determine best safety practices (DeVos et al., 2018).

School resource officers (SROs). Over the years, schools have revamped safety measures after a major crisis has occurred. SROs are one example of an improved safety measure. The United States Department of Justice defines SROs as "sworn law enforcement officers responsible for safety and crime prevention in schools" (U.S. Department of Justice, 2020). Initially, SROs were introduced in the mid-1950s in Flint,

Michigan. The intent of introducing SROs was to improve the relationship between police officers and local youth by "taking on a nonpolice role comparable to that of a social worker or family member" (Stinson & Watkins, 2014, para. 30). However, the SRO "program did not gain prominence until the 1990s in response to various school shootings" (Weiler & Cray, 2011, p. 1). Administrators are not trained to handle crises like law enforcement officers. Therefore, building leaders rely on SROs to assist in school crises. SROs help schools maintain safe learning environments, collaborate with school and community members, and SROs serve as a gap until local law enforcement officers arrive (Stinson & Watkins, 2014).

Metal detectors. Schools have incorporated SROs to aid in crisis preparedness, but those are not the only safety precautions being taken. Metal detectors are also another safety measure taken to curtail school violence. "People are accustomed to metal detector searches at airports, courthouses, and other public buildings. By and large, people accept these searches, and they may often feel more secure because of them" (Johnson, 2000, para. 11). As school violence becomes more commonplace, metal detectors are being used in a larger number of schools. New York City Mayor De Blasio vowed to randomly use metal detectors at public schools due to the rise in school violence (Baker & Taylor, 2017). Advocates of the Fourth Amendment may argue that metal detectors violate student rights. According to Cornell Law School (1992), The Fourth Amendment "grants the right of a person shall not be violated unless probable cause" exists (para. 2). Three students from Illinois challenged their Fourth Amendment rights when they brought guns to school. The students had their cases go to trial based on handguns being seized without probable cause. All trial judges from the 1996 case of

People v. Pruitt concluded: "a public-school student does not lose his or her constitutional expectation of privacy simply by entering the schoolhouse, but that expectation is reduced because of the need to create a safe educational environment" (People v. Pruitt, 1996, line 123). Since school leaders cannot monitor what students possess before entering school buildings, metal detectors aid in crisis prevention.

Identification (ID) badges. School ID badges are another preventative method that is utilized to curtail school violence. "Wearing visible identification badges is commonplace among many companies and businesses as an easy way to identify employees and ensure that access to restricted areas is only granted to certain individuals" (Campisi, 2018, para. 4). According to Positive Behavior Interventions and Supports (2020), "ID badges enhance school security by identifying occupants of a building, quickly identifying who does not belong in a school, and tracking student movement" (para. 3). Schools are required to conduct safety drills, and ID badges help serve as a quick source to identify possible intruders. However, according to data from the NCES (2018), the 2015-2016 school year had less than seven percent of public schools require their students to wear ID badges. As school violence continues to occur, ID badges might become mandatory in more schools because ID badges could help curtail future crises because ID badges allow easier access to identify building occupants, ID badges controls who can access a building, and ID badges may help aide emergency responders (Be Safe Technologies, 2018).

Bomb threats. Schools deal with a multitude of dangers, and bomb threats are no exception. "When assessing school bomb threats, investigators first should question whether the threat passes the reality test, which they should apply to both the threatener

and the threat" (Tunkel, 2010, para. 2). Bomb threats occur in schools, but administrators must collaborate with proper authorities to determine the credibility and determine whether a school evacuation is necessary.

Safety preparedness is crucial when bomb threats are made, especially "in the aftermath of the Columbine shootings and other school tragedies" (Stover, 2005, p. 11). First responders found numerous explosive devices located throughout the Columbine campus; therefore, it was deemed necessary to quickly respond to threats made by students (Stover, 2005). With the advancement of technology and the rise of social media, administrators have noticed an increase in bomb threats. Therefore, principals often consult with their threat assessment teams to determine the credibility of each threat. However, district officials communicate with the police when there is a bomb threat or other serious sign of danger (Stover, 2005).

Bomb threats may come in the form of a note, telephone call, or internet threats. Advancement in technology has caused schools to incorporate Internet Use Policies (IUP) because threats could arise via online forums. "It is important for students to understand their actions online are observable and understood by adults" (Endicott-Popovsky, 2009, p. 32). Some school districts require students to sign an IUP agreement as legal documentation stating students will follow online safety and security procedures (Endicott-Popovsky, 2009). "For some schools, bomb threats have become more routine than fire drills, with each incident ringing up multi-thousand-dollar tabs for emergency manpower, special equipment, makeup instructional time, and other costs" (Bowman, 2004, para. 3). Administrators follow emergency plans whether a crisis is a bomb threat or another type of emergency.

Chemical, biological, and radiological threats. Emergencies such as fires, weather, or bomb threats could impact a school day, and anyone could report them. However, administrators must take a different approach in reporting chemical, biological, and radiological (CBR) emergency preparedness. Schools invest in cleaning air filters regularly. However, schools fail to "have basic [CBR] evacuation and shelter-in-place protocols," which could result in the death or injury of many students (Sechena, 2005, p. 7). An evacuation plan is described as "the protective action of choice if it can be completed before dangerous levels of CBR exposure move into a school's vicinity" (Sechena, 2005, p. 7). Sheltering-in-place can be as basic as closing doors and windows along with turning off furnaces, air conditioners, or other ventilation (Sechena, 2005, p. 7). "Crisis or lockdown drills have become common across the county as schools try to prepare staff and students for the nightmare scenarios of a shooting" (Shorman, 2019, para. 10). However, many principals use "crisis drills to prepare students for a variety of possible emergency situations beyond active shooters" because CBR emergency preparedness is equally important as fire and tornado drills (Shaar, 2019, para. 9).

The Kansas legislature scaled back the number of emergency drills for the 2019-2020 school year because "the frequency of the emergency exercises added to students' anxiety and took away from class time" (Shaar, 2019, para. 6). Although fires and tornadoes are more likely to occur in a Kansas school, laws for the 2019-2020 school year mandate require schools to include three crisis lockdown scenarios to accompany the mandatory fire and tornado drills. School administrators determine the crisis drills practiced by staff and students. Kansas safety expert, John Poole, wrote, "doing more crisis drills than any other type of drill may send the message that there is a bigger risk of

a shooting or other crisis than there is of a fire or tornado" (as cited in Shorman, 2019, para. 12). Therefore, Kansas scaled back from 16 drills per year, and administrators are now required to complete four fire, two tornado, and three crisis drills for the 2019-2020 school year.

Suicide. Emergency preparedness goes beyond weather emergencies, CBR-related emergencies, and school shootings. Administrators are also faced with a growing number of suicides. "In 1958, the first suicide prevention center in the United States opened in Los Angeles, California" (National Center for Biotechnology Information [NCBI], 2012, para. 1). By "the mid-1990s", suicide became a central issue in the United States, and schools were not immune to this national crisis (NCBI, 2012, para.3). Suicides continued to rise across the United States and in the year 2001, the United States introduced the National Suicide Prevention Lifeline (NCBI, 2012, para 13). "From 2001 to 2016, suicide was the third leading cause of death in school-aged youths in the United States" (Burnett, Huang, Maeng, & Cornell, 2018, p. 379; Centers for Disease Control and Prevention, 2017). The American Psychological Association (2021) also indicated that suicide prevention is needed because "some 45,000 Americans ages 10 or older died by suicide in 2016" (para. 3). With the rising number of suicides, states have begun introducing language in threat assessments to include "behavior that may represent a threat to the community, school, or self" (Burnett et al., 2018, p. 379).

Terrorist attack. September 11, 2001 may come to mind when someone mentions terrorist attacks in America. Those attacks on the World Trade Centers not only impacted first responders and those who perished, but this tragic event also impacted people and buildings nationwide, including school systems. Although schools were not

the direct targets of terrorism, "they are certain to be affected by terrorism" (FEMA, 2003, p. i). In 2003, FEMA created a manual on ways to protect schools from terrorist attacks. FEMA's recommendations included designing new school buildings (or redesigning current school buildings) that would provide better safety measures in the event of a terrorist attack (FEMA, 2003).

According to Safe Havens International (2020), "school terrorism is an act of violence that affects schools or students and is carried out in such a way as to invoke terror in support of an ideology or greater cause rather than distinct personal motivation" (para. 2). Terrorist attacks impacting schools did not begin with September 11. It was in 1968 that the first recorded act of school terrorism occurred. On March 18, 1968, "Fatah terrorists in Israel set a land mine which later blew up on a school bus, killing two children and injuring 28" (Safe Havens International, 2020, para. 9). The first recorded United States school terrorist attack occurred in May 1986 when a man and wife in Cokeville, Wyoming, took students and teachers hostage at an elementary school (Safe Havens International, 2020). Terrorist attacks on May 1986, March 1968, September 2001, and others have prompted school leaders to follow the 2003 FEMA guidelines of building safer schools.

Pandemic flu. Educators must plan for numerous traumatic events, and laws mandate practice drills for the most common crises (fire, tornado, and intruder). However, schools are not able to prepare for every emergency that might occur. Disease outbreaks, such as the pandemic flu, are a crisis that schools, at minimum, should have an emergency manual as guidance on how to proceed. The USED (2006) defined a

pandemic flu as a "global outbreak of disease that occurs when a new flu virus appears that can spread easily from person to person" (para. 1).

During the 2004-2005 school year, the world experienced a global spread of the bird flu (H5N1). This flu originated in Asia. As a response to this outbreak, President Bush "outlined a strategy for a flu pandemic and asked Congress to appropriate $7.1 billion to help detect, contain, develop new vaccines, and stockpile those flu vaccines" (Honawar, 2005, para. 7). On November 1, 2005, President Bush said, "Scientists and doctors cannot tell us where or when the next pandemic will strike or how severe it will be, but most agree in the future we are likely to face another pandemic" (Honawar, 2005, para. 8). Health and Human Serviced Department predicted that "25 percent to 30 percent of the U.S. population could become sick during a six- to eight-week outbreak. The pandemic could kill between 209,000 and 1.9 million Americans" (Honawar, 2005, para. 9).

A new flu was circulating the world during the 2005-2006 school year. In April 2006, American schools considered closing due to the swine flu outbreak. According to Ash & Davis (2009), "closing of hundreds of U.S. schools in recent weeks because of concerns about swine flu underscores the need for administrators to make plans for continuing their students' education during any extended shutdown" (p. 1). Ash & Davis (2009) indicated that at the peak of the swine flu, 726 schools across the country closed (p. 12). According to Ash & Davis (2009), schools are "better prepared to handle crises than they once were" (p. 12). During the 2006 outbreak, schools considered e-learning to allow students an opportunity for continuous learning. Schools in Dallas/Fort-Worth "closed for seven school days because of 14 confirmed swine flu cases at eight schools in

the district," and leaders of the Dallas/Fort-Worth district cautioned reopening the schools due to potential low attendance rates (Ash & Davis, 2009, p. 13). Professors indicated that "the availability of laptop computers can make a big difference when schools are closed" (Ash & Davis, 2009, p. 14). As the 2005-2006 school year ended, administrators were urged to take steps to obtain laptops for all so students can keep learning even when schools are closed. U.S. Rep. George Miller, D-Calif, also indicated that schools need to be prepared for flu virus outbreaks because taking necessary safety precautions without overreacting or igniting panic is essential.

During the 2019-2020 school year, schools globally were impacted by a virus similar to the flu. This new global virus was called 'Coronavirus Disease 2019.' The U.S. ED (2006) indicated "scientific models support school closure as an effective means to reducing overall illness rates within communities and suggest that the value of this intervention is greatest if school closure occurs early in the course of a community outbreak," especially since social distancing is a major component of combating a pandemic flu or virus outbreak (para. 4). Schools followed CDC guidelines and closed in March 2020, and learning continued in a virtual format for the remainder of the school year.

Schools take measures to prevent traumatic events; however, predicting future crises is a difficult task. Therefore, educational institutions across the U.S. create emergency preparedness plans based on previous traumatic events. Prior to the 1958 fires, schools did not enforce fire drills; however, all schools are now required to hold fire evacuation drills. Weather-related emergencies caused schools to implement drills based on their regional weather patterns. The high-profile 1999 shooting at Columbine High

School initiated mandatory intruder drills. SROs became prevalent in schools. Metal detectors served to aid in detecting weapons such as knives or guns. School ID badges have been incorporated into schools to quickly identify occupants of a building, making it quicker to identify potential intruders. Pandemics are crises that have altered learning from a traditional school setting to virtual formats. It is never an administrator's desire to witness a horrific event, but when tragedies occur, educational leaders attempt to avoid future incidents by executing practice drills.

Perceptions of Crisis Preparedness

Schools never know when a crisis will occur. Therefore, they must prepare for tragic events via crisis preparedness drills that are outlined in safety manuals. Various people are involved in the planning, training, and execution of safety drills. This section provides details of stakeholders', parents', teachers', school psychologists', school counselors', emergency management teams', superintendents', and principals' perceptions regarding crisis preparedness.

Stakeholder perceptions. "School safety is the job of the entire school community. This effort requires leadership and coordination by school administration, and involvement and participation from all sectors of the school community" (International Finance Corporation, 2010, p. 5). In preparation for traumatic events, school leaders should include key stakeholders to collaborate in the development of emergency procedures. FEMA suggested, "Schools can take steps to plan for the potential emergencies through the creation of a school Emergency Operations Plan (EOP)" (USDE, 2013, p. 1). Developing an EOP is a collaborative effort of stakeholders, and EOP plans should continually get reviewed.

Community engagement is a key component in crisis preparedness planning. According to the U.S. ED (2007a), community partners could include mental health organizations, first responders, community leaders, or media outlets. "School districts should promote ongoing collaboration with community partners and the media to establish and maintain strong relationships before a crisis occurs." (U.S. ED, 2007a, p. 2). With the increased access to social media, community engagement becomes crucial since technology allows for the immediate release of tragic events. "When students, staff and parents learn about the threats, rumors and misinformation typically spreads like wildfire on social media, fueling anxiety in the school community" (Trump, 2015). Therefore, regardless of the location or size of a school, community involvement is the key to crisis preparedness planning. "A large, urban school may place more emphasis on a school-based team, whereas a rural school may have more need for outside professionals because of the smaller amount of resources available within the school (Aspiranti, Pelchar, McCleary, Bain, & Foster, 2011, p. 3). Developing strong community relations allows for more reliable communication should a tragic event occur at school or a school function.

Goldman (2008) studied four Massachusetts public school districts' perceptions of crisis preparedness. Hoping to understand how leadership attributes to crisis preparedness, Goldman (2008) interviewed 27 participants, documented 18 inspections, and observed four events. The researcher concluded that effective leadership promotes preparedness in the event of a tragic event. Goldman (2008) suggested a combination of effective school leaders, utilization of state and federal resources, and an effective crisis plan will lead to schools being prepared to handle tragic events.

Freeman (2015) studied school district responses to violence. Stakeholders from seven school districts in Texas were surveyed. Inspired by the numerous school shootings that occurred in America, Freeman (2015) sought to examine "the motivations, perspectives, and responses districts employed when adopting policies to arm employees" (p. 6). As districts across the nation prepare to address active shooting by arming their employees, Freeman's research could provide guidance and viewpoints on how employees feel about being armed (Freeman, 2015, p. 10). Although the districts studied varied in size, a majority of the employees agreed that "the most beneficial and cost-effective way to protect students in the event of an active shooting" is to arm employees (Freeman, 2015, p. 101).

Parent perceptions. Foster (2002) studied school safety perceptions of parents, students, teachers, and administrators. His study was conducted in Madera County, CA middle schools. The purpose of Foster's research was to address the void in the public's perception of school safety. Foster (2002) included parents in his research because "parents continue to demand and want safe school environments for their children" (p. 5). Foster conducted a qualitative study in which he interviewed a small number of participants from four middle schools. Results from the parent portion of his research indicated that parents perceived classrooms were the safest places on campus while outdoor facilities were the least safe locations. However, parents perceived that law enforcement officers aid in providing safer learning environments because gangs and drugs were occurring near school grounds, and both "gangs and drugs…made them feel unsafe" (Foster, 2002, p. 89). Parent participants indicated that overcrowded school sites

and social media play an important role in school safety, and they felt the research should have included questions about those perceptions.

Dain (2015) conducted a study in a Kansas City area school district to "explore the perceptions of staff and parents related to the implementation of the [Alert, Lockdown, Inform, Counter, Evacuate] ALICE plan" (p.13). ALICE training is an active shooter preparedness drill that allows a school to determine how their school would react in the event of an intruder. Parents were one of the participant groups who were surveyed. Dain's (2015) results indicated that "parents agreed that the school has the ability to handle a critical intruder incident…schools are safer as a result of the ALICE training" (p. 96).

Teacher perceptions. Brown (2008) examined teacher perceptions from Alabama, Florida, Georgia, Mississippi, and Tennessee. Brown stated, "there is a dearth of literature regarding teacher's perceptions of self-efficacy to deal with crises," that served as the driving force to complete this study (p. 1). The purpose of Brown's (2008) study was to examine if teachers possessed the knowledge of emergency procedures within their schools. Over 1,000 surveys were mailed to teachers from districts in Southern Mississippi. However, "of the 1,000 surveys mailed, 202 were returned" (Brown, 2008, p. 76). Brown (2008) also noted that "not all respondents completed every item; therefore, the sample size per item fluctuated" (p. 76). Results from Brown's (2008) study indicated that "teachers do not think they are adequately trained…teachers are more confident in their principal's ability to respond to a crisis, and no difference was found between rural and urban teachers regarding their perceptions of managing a crisis" (pp. 94-95).

Violence in schools is an ongoing issue, and Peterson (2007) specifically chose to examine "violence from the perspective of the classroom teacher" (p. 3). Peterson (2007) randomly studied teachers from across America by using a web-based search engine titled 'Web66'. Peterson (2007) divided the United States into four different quadrants, then randomly selected nine schools from each quadrant to complete the survey. Less than 50% of the participants responded to Peterson's (2007) survey. Although 208 teachers participated in Peterson's (2007) study, the largest response rate came "from the west region" (p. 85). Peterson (2007) reported that teachers indicated their classroom roles have changed due to increased school violence. Violent episodes include increased student discipline problems, verbal assaults, profanity usage, aggression, and bullying. Most participants indicated there was a need to address violence in schools. Also, "the more years of teaching experience that teachers had, the more their responses indicated that the role of the classroom teacher had changed" (Peterson, 2007, p. 135).

Graham (2009) studied 298 administrators and teachers in Texas public schools to examine their perceptions of emergency preparedness. In 2005, the Texas State legislature enacted Senate Bill 11, the Safe Schools Act. Senate Bill 11 required "Texas schools to conduct campus safety audits and develop EOPs" (Graham, 2009, p. 5). Questionnaires were electronically sent to participants. Although 48 districts were contacted, only 17% of the total potential participants responded to the survey (Graham, 2009, p. 40). Graham's (2009) results indicated that "perceptions of Texas teachers and administrators regarding their campus's overall preparedness for emergency operations among campuses of differing types (elementary school, middle school, high school, and combined grade level campuses) were found to be significantly different" (p. 54). The

results of the study indicated that elementary administrators and teachers felt much less prepared than their middle school and high school counterparts.

Boyd (2011) used a 40-question survey to examine middle school teachers, assistant principals, and principals perceive themselves as prepared to handle a crisis event. She conducted her research in Southern Mississippi by studying preparedness levels regarding acts of violence. Boyd (2011) determined that "the performance classification of a school did not have a direct effect on the preparedness levels of teachers, assistant principals, and principals" (p. iii). Further results from Boyd's (2011) study indicated, "middle school teachers, assistant principals, and principals are prepared to respond to acts of violence…[however], the number of years of experience does not affect the preparedness level of middle school teachers, assistant principals, and principals" (pp. 95-96).

Church (2011) studied urban teachers' perceptions of school violence. The purpose of the study was to "give the administrators who create instructional programs for teachers, information that will highlight what teachers perceive to be the obstacles that keep them from preventing school violence" (Church, 2011, p. 5). Teacher perspectives on school violence is the significant contribution made by Church's (2011) study. Church's (2011) study indicated that teachers lack the needed training to cope with school violence; therefore, professional development opportunities might help teacher training.

Dixon (2014) completed a study focusing on teachers' perspectives on safety and preparedness regarding acts of violence in schools, specifically school shootings. The sampling was Midwestern K-12 teachers. According to Dixon (2014), "The driving force

behind teachers feeling unsafe at school is not specifically related to the possibility of a school shooting, but rather student behavior" (p. 57). Dixon (2014) used a quantitative approach to study teachers' perceptions of safety. Results from the study indicated teachers had mixed feelings about school safety. Some teachers felt safe in their work environment, while other teachers felt their buildings could improve security measures.

Badura (2018) was an aspiring teacher who recalled childhood trauma she faced while participating in lockdown drills during her primary years. Nevertheless, she perceived teachers of today as people willing to take a bullet for others. While studying at the University of Wisconsin-Eau Claire to become an elementary teacher, Badura questioned if she genuinely wanted to become a teacher, especially since 10 school shootings with injuries or deaths occurred during one year of her undergraduate studies. Badura indicated that teachers should focus more on teaching and not on becoming a shield in case of gun violence. Teachers across America are being asked to enter the classroom armed. However, Badura reminds herself that she chose an education major to become someone who makes a difference in children's lives.

"When students feel safe, they are better able to focus on learning, which in turn leads to increased academic achievement" (Readiness and Emergency Management for Schools Technical Assistance Center, 2018, para. 1). Schools are experiencing a high number of violent threats, leading to varying perceptions of school safety. Godstein, Young, and Boyd (2008) purported that perceptions of school safety might have a greater impact than students' actual safety. Therefore, if the perceived climate of a school culture causes internal stress, then students are more susceptible to lower standards of

learning. Crisis preparedness teams should consider learning environments when preparing the EOP.

School psychologist perceptions. School psychologists sometimes advise crisis response teams (CRTs). Cornell and Sheras (1998) indicated psychologists are trained to perform two of the most critical crisis responses: a) conduct a meaningful and timely follow-up service to those affected by the crisis, and b) conduct a post-event evaluation of the crisis plan and its implementation. Students are not the only individuals who might be adversely affected by a traumatic event. Adamson and Peacock (2007) indicate adults in a school building might also need the help of a psychologist to navigate their emotions after a school crisis has occurred because "a majority of psychological debriefing participants were school staff and students" (p. 759). Working through emotional trauma often requires guidance from a professional.

Allen et al. (2002) conducted a follow-up survey with 276 school psychologists, and their findings indicated that only 5% of school psychologists took coursework in crisis preparedness. Weis et al. (1987) indicated only 8% of school psychologists had completed coursework in crisis intervention. Although both studies indicated a low number of school psychologists studied crisis preparedness coursework, over 50% of respondents indicated school psychologists perceived crisis training as important (Nickerson & Zhe, 2004, p. 3).

Adamson and Peacock (2007) studied psychologists' perceptions. Their results indicated psychologists agreed they had some type of crisis preparedness training, but "many participants suggested that additional training and practice with crisis intervention would improve schools' crisis responses" (Adamson & Peacock, 2007, p. 1). Members

of the CRTs play an integral role in helping staff and students navigate through post-traumatic feelings. Since school climate is drastically altered after a disturbing event, psychologists and other CRT members should ensure they promptly offer services to help staff and students recover from tragedies (Cornell & Sheras, 1998).

School counselor perceptions. "School counselors are a vital resource in preventing, intervening, and responding to crisis situations" (American School Counselor Association [ASCA], 2019, para. 6). Although principals are tasked with ensuring safety for all, counselors collaborate with principals by offering safety training sessions to staff members. Counselors undergo hours of safety training procedures, enabling counselors to train others to detect suspicious behavior. Schools often have counselors implement staff training sessions on identifying, reporting, and preventing potential school threats. According to ASCA (2019), "school counselors serve as leaders in safe-school initiatives" (para. 1). When a school crisis occurs, people often become frazzled and need someone to help navigate their emotional needs. Therefore, "school counselors may need to take on a leadership role before, during, and after a crisis" (Studer & Salter, 2010, p. 3). Although counselors serve as the front line on intervention teams, Allen et al. (2002) indicated that only two-thirds of counselors enter the profession with formal crisis preparedness training. However, 61% of counselors reported participating on CRTs, and counselors might not receive formal crisis preparedness training before serving at a school.

Werner (2007) researched Missouri school-based counselors via "a web-based, self-report survey" (p. 8). The purpose of Werner's (2007) "study was to explore Missouri school counselors' perceptions of school crisis preparedness and crisis training

experiences" (p. 8). The sample was generated from the Missouri DESE counselor list of 2,735 names. Werner (2007) invited every fourth counselor on the list to participate in the study by completing the survey. However, only 21% of Werner's (2007) survey recipients responded. "The majority (67% of counselors reported feeling their school was "fairly" to "moderately" prepared)" to handle a school crisis (Werner, 2007, p. 128). However, the number of years as a counselor and their confidence to deal with a crisis drastically differed; however, results indicated that counselors with 21+ years of experience felt the most prepared, whereas counselors with five or fewer years did not feel adequately prepared (Werner, 2007, p. 19).

Emergency management team (EMT) perceptions. "In order for a school crisis response plan to be effective, the plan must interface with the plans of the local emergency response agencies" (Watson, 2000, para. 5). EMTs collaborate with school leaders during a tragic event. Though it is unfortunate when tragedies occur at educational institutions, stakeholders play a pivotal role in transforming a school back to a conducive learning environment. Schools implement CRTs to help diffuse situations and calm emotions while they wait for help to arrive. EMTs are outside entities that help when a crisis unfolds, and first responders serve as EMT members. "When it comes to school emergencies, the expertise that counts most is often that of local police officers, EMTs, and fire personnel" (MacGillivray, 2016, para. 7). First responders perceive schools to be safe learning environments when students are not afraid to report potential violence. "School safety tip lines have been embraced as a potentially lower cost option to help prevent school violence" because they serve as a way for students to anonymously alert the school leaders and law enforcement agencies (Erwin, 2019, para. 4). Chung,

Danielson, and Shannon (2009) determined that "emergency communication should be established between each school and the school district and town emergency responders (e.g., preprogrammed cell phones with group page capability, group email through the Internet or another type of mass notification system)" (p. 8). When a collaborative effort is made amongst a community, it is the hope that minimal casualties occur during a horrific event.

Swiontek (2009) studied school preparedness in North Dakota public schools. Due to the numerous school shootings that occurred at the turn of the millennium, Swiontek (2009) states, "School districts in the United States and America suddenly became very interested in school security and school safety issues" (p. 9). Swiontek's (2009) purpose was to determine whether school administrators in North Dakota were prepared for a disaster such as a school shooting. "Schools have either reacted to this by taking temporary security and safety measures or have taken a proactive position and have implemented … a comprehensive emergency response plans and exercises" (Swiontek, 2009, p. 10). Swiontek (2009) found that a majority of school districts have an emergency response plan that addresses most types of disasters.

Henrique (2010) studied school violence perceptions of all school personnel via 40 participants from one school in Southern California. This study was unique because, unlike other studies, Henrique (2010) focused on all school personnel. According to Henrique (2010), it takes an entire staff to "ensure safe school environments" (p. 14). Henrique (2010) also stated, "most violent incidents are relatively short and were resolved by school personnel before the police arrived" (p. 24). Henrique purported that

when a school has more SROs, then the school is perceived to have more violent incidents.

Superintendent perceptions. Link (2010) studied SROs in Missouri Public Schools. SROs gained popularity in the 1950s, and they were meant to become "an avenue for schools and communities to establish positive relationships" (Link, 2010, p. 1). However, the events at Columbine High School, plus many other recent school shootings, have changed the duties of SROs. Therefore, the purpose of the research was to "garner the perceptions of school superintendents regarding the impact of school resource officers on school climate; school safety, including student discipline; and relationships developed between school, home, and community" (Link, 2010, p. 6). During this study, Link hypothesized that a school superintendent would deem a school has a more positive climate with the presence of an SRO. Link's (2010) superintendent sample represented 523 public school districts in Missouri. Link's (2010) sample was further narrowed down to 40 school districts that either had an active SRO or did not have an active SRO. A quantitative study was used because the researcher administered a survey to identify superintendents' perceptions of SROs. The response rate was 47.5%. Link indicated that schools with SROs met higher academic standards than schools without SROs (Link, 2010). Link also indicated attendance rates were also positively impacted by having active SROs; however, truancy rates are still prevalent in many schools. SROs helped to bridge the gap between schools and law enforcement agencies. However, Link (2010) indicated, "statistically, school resource officers have no direct impact on student achievement or academic success" (p. 94).

Hammond (2011) used a mixed-method design to explore emergency preparedness plans in Massachusetts School Districts. Research for Hammond's (2011) study was prompted because, at that time, "no federal or state laws existed to mandate that public school districts adopt emergency plans" (p. 3). Participants were randomly selected. Of the 299 chosen superintendents, only 44 completed the survey, which was a "14%" participation rate (Hammond 2011, p. 10). Results from Hammond's (2011) study indicated superintendents are better prepared to handle a crisis than the recovery efforts of crisis preparedness.

Monzingo (2017) studied perceptions of superintendents in Texas regarding crisis preparedness. "Preparedness of the school includes not only the crisis plan but the implementation of the plan and recovery after implementation" (Monzingo, 2017, p.4). This qualitative study collected data from four different superintendents in Texas (Monzingo, 2017). Participants in this study were sent an email containing interview questions, and the four superintendents were able to prepare for their interview one week in advance. Results from Monzingo's (2017) study indicated "there is no fool-proof plan that can be created, [however] there are safety measures, planning, and considerations that must be implemented or improved in order to provide a more secure educational environment" (p. 77). All four superintendents in this study perceived that their school districts were adequately prepared to handle crises.

Carter (2019) studied Kansas and Missouri Superintendents' perceptions of crisis preparedness. The purpose of Carter's (2019) study was to fill the void in "existing research conducted on superintendents' perceptions of crisis preparedness" (p. 7). A total of 142 superintendents participated in the study. Approximately 63% of survey

participants were from Kansas, and the remaining participants were from Missouri (Carter, 2019). Results from Carter's (2019) study indicated superintendents perceive crisis preparedness activities regarding access and identification and internal security were present in district buildings. However, superintendents do not perceive that crisis preparedness activities associated with safety preparedness development, safety preparedness student activities, safety preparedness first responders' activities, levels of preparedness, or influences on efforts towards safety preparedness were present in district buildings (Carter, 2019).

Principal perceptions. Early (2003) conducted a study using a sample of middle school principals in Alabama because there was "an urgent need to determine the perception of public-school principals regarding the safety of middle schools" (p. 5). Early's (2003) research stemmed from the "more than 300 school-associated violent deaths on or near schools across America" during the decade leading up to this study. This quantitative study included 160 participants, and from the questionnaires administered, 64 (40%) of the principals responded to the survey. Respondents represented an array of schools ranging from city schools to schools located in the county. Although school leaders came from differing school locations, 82% of the 68 principals felt their schools provided safe learning environments (Early, 2003). However, recurring safety concerns included security systems, age of buildings, fencing concerns, traffic concerns, and bus loading areas (Early, 2003). Results from the study indicated some principals felt their schools provided safe learning environments, while others felt they led unsafe schools. Early (2003) also indicated, "There is a need for educational decision-makers from all levels of education to examine schools for safety" (p. 75).

Reed (2007) stated, “Many Americans feel that schools should be the safest place our children can be, perhaps at times even safer than those in which they live” (p. 2). Reed (2007) conducted a mixed-method study comprising both quantitative and qualitative data. Questionnaire packets were mailed to 64 urban and suburban high school administrators from Orange County, California. A small sampling of the participants was from a rural portion of Orange County, California. Reed (2007) sought “to improve knowledge about levels of violence, the measures used to prevent violence, the impact to schools that violence leaves in its wake, and the type of resources that administrators feel they need” (p. 8). Findings from Reed’s (2007) study indicated that administrators possessed limited knowledge of how to obtain law enforcement assistance in the event of a crisis. Also, participants indicated they had not identified violence in their schools or reported the violence in their schools; however, the data from state records were not consistent with survey responses. State records indicated a high number of serious crimes occurring in Orange County schools (Reed, 2007). The disparity between state-reported data and survey responses should be further researched because “these data may provide an indication that the communication of working procedures may not be as clearly defined when the county or city police authorities work with local schools” (Reed, 2007, p. 91). Also, data from this study revealed: “more than 50% of the respondents did not have a violence prevention or a violence reaction plan” (Reed, 2007, p. 93). Reed indicated a discrepancy between state-reported data and survey data, and he frequently suggested further research to clarify the inconsistencies.

In a study of Iowa high school’s emergency preparedness, Tigges (2009) indicated that “a higher percentage of urban fringe and city high schools in Iowa

physically have more safety measures in place in their schools than many rural or town high schools in Iowa" (p. 101). Tigges (2009) recommended that Midwestern states complete a study to analyze emergency preparedness at the secondary level, instead of only the high school level, to get more responses. High school principals in Iowa received a digital copy of Tigges' (2009) survey, which included questions about "principal attitudes, safety measures, programs, plans, and safety in their schools" (p. 5). This survey was open on SurveyMonkey for one month (April 24, 2008 to May 24, 2008). Tigges sent requests to 419 participants, but only 72 principals responded. In the study, a majority (49%) of 72 respondents were from "rural areas" (Tigges, 2009, p. 56). The purpose of Tigges' (2009) research "was to examine the types of emergency preparedness plans in high schools across Iowa and ascertain the attitudes of Iowa high school principals on the importance of having policies in place in their schools to deter violence" (p. 4). Results indicated, "96% of their high schools are prepared for a natural disaster or bomb threat" (Tigges, 2009, p. 49). According to Tigges (2009), 92% of principals indicated their school had an emergency plan in place to deal with a school shooting. Crisis preparedness dropped to a lower percentage when discussing chemical or biological emergencies because only 71% of principals felt prepared for a chemical spill. In comparison, only 53% felt prepared for a biological spill. School administrators felt the least prepared to deal with a pandemic or illness because only 35% of respondents indicated their schools had an emergency plan in place for a pandemic outbreak (Tigges, 2009, p. 49). "Data gathered from the Iowa High School Preparedness Survey indicated that a higher percentage of urban fringe and city high schools in Iowa physically have

more safety measures in place" [than their rural or town counterparts] (Tigges, 2009, p. 101).

Alba (2011) studied the crisis preparedness perceptions of 60 Rhode Island administrators and first responders based on building location and building level. The purpose of Alba's (2011) study was to "explore the perceptions of building principals with regards to crisis preparedness within their schools along with the perceptions of Rhode Island school district leadership and their cities and towns first responders" (p. 6). Alba (2011) conducted a mixed-method study via surveys and interviews. Alba's (2011) reasoning for combining both qualitative and quantitative studies was to "better understand this research problem by converging both quantitative (broad numeric trends) and qualitative (detailed views) data" (p. 11). Results from Alba's (2011) study indicate "differences in perceptions of school crisis preparedness among administrators in urban, urban ring and suburban districts; as well as elementary, middle, and high school groups with respect to crisis preparedness training" (p. 175).

Alba and Gable (2011) completed research using a sample of school administrators and first responders regarding crisis preparedness. This mixed-method study simultaneously occurred with Alba's (2011) study on the same topic. Results from both studies indicated that most schools surveyed have some type of emergency preparedness plan in place. However, Alba and Gable (2011) indicated there is a "need to identify the barriers which prevented school districts, first responders and community partners from training together" (p. 19).

"When children become involved, the stakes immediately become higher" (McCarty, 2012, p. 10). School leaders are often the face of tragic events because,

according to McCarty (2012), "How a school leader responds to a crisis can greatly influence the impact on the school community" (p. 48). McCarty (2012) completed a mixed-method study on emergency preparedness of 192 principals in Western Pennsylvania. McCarty's (2012) qualitative portion of this study was to gain information on how to improve the survey. The quantitative portion of McCarty's (2012) study included surveys. Of the 192 surveys issued, McCarty (2012) garnered 82 responses (p. iv). Results from McCarty's (2012) study indicated "principal preparatory programs need to provide the opportunity for coursework in crisis management so that school leaders receive this training prior to crisis events" (p. 74).

"During a crisis, the staff looks to the principal for direction, support, security, composure, and hope" (Lynch, 2013, p. 39). District-level leaders appoint principals to serve as the managers of school buildings. Therefore, staff members and students will turn to the principal for guidance during an emergency. The purpose of Lynch's (2013) study was to examine "school crisis preparedness, designed to decrease incidents of public-school violence, from a principal's perspective" (p. v). A quantitative study was completed to explore school districts' written crisis preparedness plans. Lynch (2013) felt that "school violence can lead to depression, anxiety, fear, and other psychological problems" (p. 69). Therefore, Lynch (2013) conducted research to provide more information about principals' perceptions of crisis preparedness. The result of Lynch's (2013) study indicated, "the only statistically significant association discovered existed between having a written crisis plan for hostage situations and incidents of school violence" (p. 97). Therefore, school principals and superintendents can collaborate with

staff members to ensure a safe learning environment exists for students (National Association of School Psychologist: School safety and crisis response committee, 2015).

Waters-Johnson (2013) was a principal who experienced a crisis event originating in the school cafeteria, a gas leak. Following her school's crisis response protocol, Waters-Johnson (2013) immediately evacuated the school when a cafeteria manager reported the smell of gas. After the evacuation, it was discovered that all gas valves were in the off position. This real-life experience led Walters-Johnson to ideas for conducting her dissertation research: how principals perceive school crisis. The purpose of her study was to understand how principals define and recognize a crisis and their role during a crisis. This study was conducted at New York University, but data was collected from all fifty states, then narrowed down to 10 district-level crisis plans. Walters-Johnson designed her study to include two sets of data collection: 1) a review of a national sample of crisis plans and 2) a web-based survey to collect information about principals' basic awareness of crises, their involvement in preparation and training, and their perceptions of emergency preparedness. Waters-Johnson (2013) concluded that principals who participated in her study perceived they were trained and informed about safety issues, were comfortable contacting their superintendent for advice, and believed they were prepared to handle a crisis. She also concluded that principals found it easy to determine the seriousness of a traumatic event. Nevertheless, principals felt more confident in dealing with a crisis when they were informed internally versus externally due to trusted relationships with internal coworkers.

Umoh (2013) studied school administrators' perceptions of threats and vulnerabilities of terrorism incidents in their districts. According to Umoh's (2013)

study, “Emergency preparedness allows school districts to plan, train, drill, and collaborate on how to protect students and staff” (p. 17). Acts of terrorism had been negatively altering the school’s learning climate, so in 2002, the Department of Homeland Security agency was created. The results of Umoh’s (2013) study indicated that effective emergency preparedness “should consider campus characteristics such as academic programs, size, number, type of building, physical location, athletic arenas, laboratories, accessibility to campus resources and the student mix” (pp. 4-5). Participants interviewed in this qualitative study were 18 administrators from the North Dallas (Texas) School District. The purpose of the study was to gather information on how administrators and law enforcement officers collaborated in terrorism preparedness. Although incidents of terrorism in schools have been documented, Umoh felt there was not enough research on how schools adequately prepare to deal with terrorism. However, upon completion of his research, Umoh (2013) discovered that administrators were concerned about “getting campus personnel to consider emergency planning as a high priority as they do academics…also, administrators felt their [emergency] plans were able to address terrorism threats” (p. 147). Also, he revealed that administrators “saw the need to establish a working relationship between the district emergency management teams and local agencies” (Umoh, 2013, p. 148). Communication is a key factor in helping administrators feel like they operate a safe campus, thus indicating “that the administrators are direct resources to school campuses and principals to ensure that emergency plans are developed and tested annually in accordance to local and state policies” (Umoh, 2013, p. 156).

Henderson (2013) utilized a mixed-methods research design to examine how a principal's leadership style influences their preparedness for a school crisis. "School administrators are the chief executive officers, the leaders responsible for the total operation and climate of the entire school" (Henderson, 2013, p. 7). The leadership styles Henderson (2013) explored were laissez-faire, transactional, and transformational. Quantitative data was collected via a questionnaire, and qualitative data were collected via personal interviews. Henderson (2013) completed her study of 220 elementary and secondary public-school principals in southwestern Pennsylvania. Henderson's (2013) participants included 43 male and 26 female principals, which equated to about a 31% response. Henderson (2013) indicated the leadership style in a crisis event is irrelevant because the leadership needed during an emergency will "have an awareness of the indicators of violence, the skills necessary to assess the potential for school violence, and the ability to develop, practice, and implement crisis intervention plans" (p. 181).

Daughtry (2015) studied the perceptions of principal preparedness in South Carolina. She administered her survey during high testing season, thus leading to few responses. However, results from her study indicated the importance of having a CRT and practicing crisis drills. Daughtry (2015) also found that a "majority of principals in the South Carolina low country (71.42%) indicated that they had experienced a crisis event which broadly impacted the school environment" (p. 49). Daughtry also noted that principals have a high level of knowledge with regard to informing staff, first responders, and parents about traumatic events. However, principals could improve on informing key stakeholders, such as psychologist and counseling services, during times of trauma. Results from this study mimic the results from Adamson and Peacock's (2007) study

because both groups of participants indicated they had experienced some type of crisis event. However, half of the survey participants in Daughtry's (2015) study indicated "the training they received was sufficient, the other half either felt they were not sufficiently trained or that they did not know whether they were sufficiently trained" (p. 75). Most of the principals in Daughtry's (2015) study indicated they "are not sufficiently prepared to respond to a crisis event" (p. 80). Daughtry (2015) also suggested that although the South Carolina region is "fairly likely to experience a crisis event…many believe that additional training on a comprehensive method of crisis intervention is necessary to be sufficiently prepared for a crisis event" (p. 83).

The aforementioned researchers concluded that principals are prepared to deal with crises within their school buildings. Ongoing training served as a key component of a principal's comfort level. Communication with key stakeholders and regularly practicing crisis drills also aid in the preparedness levels of principals.

Summary

A review of the literature was included in this chapter. This review included the evolution of crisis preparedness in schools and stakeholders' perceptions of crisis preparedness. Chapter 3 includes the methodology related to this study.

Chapter 3

Methods

Public schools are required to hold a certain number of safety drills focusing on natural disasters and intruders. In previous school years, Kansas schools were required to conduct 16 emergency preparedness drills, including nine crisis drills covering intruder responses and lockdown procedures (Kansas Association of School Boards, 2018). Laws were updated during the 2019-2020 school year, and beginning July 1, 2019, Kansas schools were required to hold nine safety drills (four for fire, two for tornadoes, and three for crisis lockdown scenarios). This study was conducted to determine the perceptions of Kansas' public-school principals about crisis preparedness within their school buildings and to determine if crisis preparedness perceptions varied between building level and building location. This chapter includes the research design, selection of participants, measurement, data collection procedures, data analysis and hypothesis testing, and limitations of the study.

Research Design

This dissertation involved a quantitative design that used survey research methods. A quantitative method was chosen because a large group of principals was the targeted sample, and their responses helped identify principal perceptions of crisis preparedness. An online survey guided this research, thus allowing objective measurements and numerical analysis of data collected via the online questionnaire. The independent variables were the school level (elementary, middle, or high school) and school location (city, suburban, town, or rural). The dependent variables in the study were principals' perceptions of crisis preparedness planning related to access and

identification, internal security, safety preparedness, preparedness plans, drills on crisis preparedness plan, and the impact of external and internal factors.

Selection of Participants

Purposive sampling, also known as selective sampling, was used for this study. The use of purposive sampling allowed for the examination of principal responses to crisis preparedness (Lunenburg & Irby, 2008). Participants were employed during the 2019-2020 school year. Principals, who were listed in the KSDE database with a valid email address, were invited to participate.

Measurement

A Likert-type survey was used to measure the variables specified in the research questions regarding the perceptions of Kansas public school principals about crisis preparedness. The original survey was developed by Alba (2011) and was modified by Carter (2019). Both Alba (2011) and Carter (2019) granted permission for their surveys to be used and modified to meet the purposes of this study (see Appendix A). The survey was modified from Alba's (2011) survey of Rhode Island principals and Carter's (2019) survey of Kansas and Missouri Superintendents to collect numerical data on the perceptions of Kansas principals. The actual content of the survey items was not changed. Instead, Alba's Rhode Island principals and Carter's (2019) Kansas and Missouri Superintendents were adjusted for this study of Kansas principals.

The survey used for this study consists of 59 close-ended items (designed to gain perceptions on crisis preparedness) and 2 multiple-choice questions (designed to gather data about building level and building location) (see Appendix B). The response scales

for the individual items varied. See Table 1 for the alignment of the survey areas, research questions, scales.

Table 1

Survey Areas, Research Questions, and Scales

Area	RQs	Scale
Access & Identification	RQ1 & RQ2	*Never, Rarely, Occasionally, Often, Always*
Internal Security	RQ3 & RQ4	*Never, Rarely, Occasionally, Often, Always*
Safety Preparedness Development	RQ5 & RQ6	*Never, Rarely (2 years or longer), Occasionally (annually), Often (Bi-annually), Always (quarterly)*
Safety Preparedness Activities: Students	RQ7 & RQ8	*Not part of the written plan, Never (in the plan but never drilled), Occasionally (annually), Often (1-4 times annually), Constantly (5 or more times annually)*
Safety Preparedness Activities: First Responders	RQ9 & RQ10	*Not part of the written plan, Never (in the plan but never drilled), Occasionally (annually), Often (1-4 times annually), Constantly (5 or more times annually)*
Levels of Preparedness	RQ11 & RQ12	*Not at all prepared, Somewhat prepared, Prepared, Well prepared, Extremely well prepared*
Influences on Efforts towards Safety Preparedness	RQ13 & RQ14	*Not at all influential, Slightly influential, Somewhat influential, Very influential, Extremely influential*

A Baker University instructor advised on survey edits. Revisions were made to Alba's (2011) and Carter's (2019) surveys; however, the content validity was not affected because the item wording was not changed from Carter's (2019). Content validity was

established based on Alba's (2011) literature on crisis preparedness. Additional, evidence for the validity of the survey used in the current study was not needed.

Alba (2011) surveyed Rhode Island administrators and Carter (2019) surveyed Kansas and Missouri superintendents. Both Alba and Carter administered online surveys about crisis preparedness. Carter revised Alba's survey to fit the needs of Kansas and Missouri superintendents. For the purpose of the current study, Carter's survey was revised to fit the population of Kansas principals. 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 indicated strong reliability for the scales" (Carter, 2019, p. 44) (see Table 2).

Table 2

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

Adapted from *Kansas and Missouri Superintendents' Perceptions of Crisis Preparedness*, by J. Carter, 2019. Retrieved from http://www.bakeru.edu/images/pdf/SOE/EdD_Theses/CarterJanet.pdf

Subsequent questions included demographic data for building level and building location. Participants were asked to identify building level: a) Elementary (PK-5), b) Elementary (K-8), c) Middle (6-8), d) High (9-12), and e) Other. Respondents were also asked to identify building location: city, rural, suburban, or town.

Measurement for building level was represented in two formats. The first set of data was the original data collected from survey participants. Respondents had the option to choose one of the four options listed in the previous paragraph or choose the fifth option, 'Other.' Final data indicated participants identified 29 different building levels. From this data, the 29 identified building levels were recoded to a condensed format including the following five codes: a) Elementary, b) Middle, c) High, d) District, and e) Other.

Data Collection Procedures

The collection of data was a multi-step process. The researcher requested permission from the Baker University Institutional Review Board (IRB) on December 16, 2019. On January 29, 2020, the IRB was approved (see Appendix B), and immediately, the email addresses of principals were gathered from the KSDE website. Google Forms was the digital source used to create the questionnaire. The solicitation email included a statement that informed participants that by completing the survey, consent was given to use the information provided in the survey. Digital requests were sent to all principals employed during the 2019-2020 school year (see Appendix C) on March 23, 2020. On April 6, 2020**,** a follow-up email was electronically delivered to all participants with a request to complete the survey if they had not already done so (see Appendix D). On April 20, 2020, a third email was electronically delivered to participants still needing to

complete the questionnaire (see Appendix E). On June 23, 2020, a fourth and final email was electronically delivered to participants still needing to complete the questionnaire (see Appendix F). Once the survey was closed on June 30, 2020, data from Google Forms were downloaded to an Excel spreadsheet. The researcher manually saved, sorted, and stored all Excel spreadsheet data into a digital folder. Data collected were imported into IBM SPSS Statistics Faculty Pack 25 for Windows for analysis.

Data Analysis and Hypothesis Testing

Fourteen research questions guided this study. Each research question is listed below and is followed by the hypothesis or hypotheses to be tested. Following each hypothesis is the data analysis used to test the hypothesis.

RQ1. To what extent do Kansas principals perceive that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year?

H1. Kansas principals perceive that crisis preparedness activities associated with access and identification were present in their building during the 2019-2020 school year.

A one-sample *t* test was conducted to test H1. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

RQ2. To what extent are Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year affected by school level and location?

H2. Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year were affected by school level.

A one-factor analysis of variance (ANOVA) was conducted to test H2. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

H3. Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H3. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

RQ3. To what extent do Kansas principals perceive that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year?

H4. Kansas principals perceive that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year.

A one-sample *t* test was conducted to test H4. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

RQ4. To what extent are Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year affected by school level and location?

H5. Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H5. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

H6. Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H6. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a

numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

RQ5. To what extent do Kansas principals perceive that crisis preparedness development associated with safety preparedness was practiced in their building during the 2019-2020 school year?

H7. Kansas principals perceive that crisis preparedness development associated with safety preparedness were practiced in their buildings during the 2019-2020 school year.

A one-sample *t* test was conducted to test H7. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

RQ6. To what extent are Kansas principals' perceptions that crisis preparedness development associated with safety preparedness was practiced in their buildings during the 2019-2020 school year affected by school level and location?

H8. Kansas principals' perceptions that crisis preparedness development associated with safety preparedness was practiced in their buildings during the school year were affected by school level.

A one-factor ANOVA was conducted to test H8. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a

numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

H9. Kansas principals' perceptions that crisis preparedness development associated with safety preparedness were practiced in their buildings during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H9. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

RQ7. To what extent do Kansas principals perceive that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year?

H10. Kansas principals perceive that students were informed or drilled on the components of the school's crisis preparedness plan in their buildings during the 2019-2020 school year.

A one-sample *t* test was conducted to test H10. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

RQ8. To what extent are Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year affected by school level and location?

H11. Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H11. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

H12. Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H12. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

RQ9. To what extent do Kansas principals perceive that first responder personnel were involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year?

H13. Kansas principals perceive that first responder personnel were involved with drills on the components of the school's crisis preparedness plan.

A one-sample *t* test was conducted to test H13. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

RQ10. To what extent are Kansas principals' perceptions that first responder personnel were involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year affected by school level and location?

H14. Kansas principals' perceptions that first responder personnel involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H14. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared,* is reported.

H15. Kansas principals' perceptions that first responder personnel involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H15. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural).

The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

RQ11. To what extent do Kansas principals perceive that their school was prepared for a crisis during the 2019-2020 school year?

H16. Kansas principals perceive that their school was prepared for a crisis during the 2019-2020 school year.

A one-sample *t* test was conducted to test H16. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

RQ12. To what extent are Kansas principals' perceptions that their school was prepared for a crisis during the 2019-2020 school year were affected by school level and location?

H17. Kansas principals' perceptions that their school was prepared for a crisis during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H17. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

H18. Kansas principals' perceptions that their school was prepared for a crisis during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H18. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

RQ13. To what extent do Kansas principals perceive that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year?

H19. Kansas principals perceive that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year.

A one-sample *t* test was conducted to test H19. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

RQ14. To what extent are Kansas principals' perceptions that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year were affected by school level and location?

H20. Kansas principals' perceptions that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year affected by school level.

A one-factor ANOVA was conducted to test H20. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

H21. Kansas principals' perception that safety preparedness efforts to maintain a safe and secure school influenced by external and internal factors during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H21. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

Limitations

According to Lunenburg & Irby, "limitations may have an effect on the interpretations of the findings or on the generalizability of the results" (Lunenburg & Irby, 2008, p. 133). The 2020 pandemic was the first limitation of this study. The second limitation was the low response rates from the selected sample. Some principals may not have received the invitation to participate due to a setting on their email servers that

might have moved the email to junk mail. Other principals may have seen the email and may have decided not to participate in the survey.

Summary

The purpose of this study was to examine the crisis preparedness perceptions of principals in the state of Kansas. Chapter 3 was an explanation of the research design, selection of participants, and the measurement. The data collection, data analysis, and limitations were also discussed. Chapter 4 includes the descriptive statistics and the results of the hypothesis testing.

Chapter 4

Results

Chapter 4 includes the descriptive statistics and the results from the hypothesis testing. Data results are presented from Kansas principals' perceptions in the following 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 toward safety preparedness. Additionally, Kansas principals' perceptions based on building location (city, rural, suburban, and towns) and building level (elementary, middle, and high, and other) are presented.

Descriptive Statistics

According to Lunenburg and Irby (2008), descriptive statistics are the "mathematical procedures for organizing and summarizing numerical data" (p. 63). The survey was emailed to 1,211 principals, and 197 completed the survey. For school location, participants selected from the following choices: city, rural, suburban, and town. The school location reported by the participants included: 32 – city, 89 – rural, 32 – suburban, and 44 – town. For school level, participants selected from the following choices: Elementary (PK-5), Middle (6-8), High (9-12), and Other (specify). Because of the numerous responses to the category labeled as 'Other,' data from the 'other' category was recoded. For example, 5-6, K-5, PK-6, and PK-1 were recoded as Elementary; PK-12 and K-12 were recoded as District; and 7-12 and K-8 were recoded as Other. In Table 3, the frequency and percentages for the recoded school level categories are found. These

are the categories used in the hypothesis testing. See Table G1 in Appendix G for the original school level data reported by participants.

Table 3

Frequency and Percentages for Recoded School Level Categories

Recoded School Level	Frequency	%
District	13	6.6
Elementary	100	50.8
Middle	20	10.2
High	46	23.4
Other	18	9.1

Hypothesis Testing

Data from Google Forms was downloaded and exported into Excel. This data was then imported into the IBM SPSS Statistic Faculty Pack for analysis. Fourteen research questions were analyzed. 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 Kansas principals perceive that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year?

H1. Kansas principals perceive that crisis preparedness activities associated with access and identification were present in their building during the 2019-2020 school year.

A one-sample *t* test was conducted to test H1. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the

hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

The results of the one-sample *t* test indicated a statistically significant difference between the group mean and the test value, $t(189) = 16.326$, $p = .000$, Cohen's $d = 1.19$. The sample mean ($M = 3.68$, $SD = 0.57$) was significantly higher than the test value (3). H1 was supported. The effect size indicated a large effect. Kansas principals perceive that crisis preparedness activities associated with access and identification were present occasionally to often in their building during the 2019-2020 school year.

RQ2. To what extent are Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year affected by school level and location?

H2. Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year are affected by school level.

A one-factor analysis of variance (ANOVA) was conducted to test H2. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by eta-squared, is reported.

The results of the analysis indicated a statistically significant difference between at least two of the means, $F(4, 185) = 9.927$, $p = .000$, $\eta^2 = 0.177$. See Table 4 for the

means and standard deviations for this analysis. A follow-up post hoc was conducted to determine which pairs of means were different. The Tukey's Honestly Significant Difference (HSD) post hoc was conducted at $\alpha = .05$. Three of the differences were significant. The elementary school principals' mean ($M = 3.82$), the middle school principals' mean ($M = 3.86$), and the high school principals' mean (M = 3.55) were higher than the district principals' mean ($M = 2.92$). H2 was supported. The effect size indicated a small effect. Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year are affected by school level.

Table 4

Descriptive Statistics for the Results of the Test for H2

School Level	*M*	*SD*	*N*
Elementary	3.82	0.46	100
Middle	3.86	0.48	18
High	3.55	0.62	44
District	2.92	0.76	12
Other	3.48	0.43	16

H3. Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year are affected by school location.

A one-factor ANOVA was conducted to test H3. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a

numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by eta-squared, is reported.

The results of the analysis indicated a statistically significant difference between at least two of the means, $F(3, 186) = 22.322$, $p = .000$, $\eta^2 = 0.265$. See Table 5 for the means and standard deviations for this analysis. A follow-up post hoc was conducted to determine which pairs of means were different. The Tukey's Honestly Significant Difference (HSD) post hoc was conducted at $\alpha = .05$. Three of the differences were significant. The city principals' mean ($M = 4.09$), the suburban principals' mean ($M = 3.95$), and the town principals' mean ($M = 3.78$) were higher than the rural principals' mean ($M = 3.36$). H3 was supported. The effect size indicated a small effect. Kansas principals' perceptions that crisis preparedness activities associated with access and identification were present in their buildings during the 2019-2020 school year were affected by school location.

Table 5

Descriptive Statistics for the Results of the Test for H3

School Location	*M*	*SD*	*N*
City	4.09	0.30	31
Rural	3.36	0.60	83
Suburban	3.95	0.35	32
Town	3.78	0.46	44

RQ3. To what extent do Kansas principals perceive that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year?

H4. Kansas principals perceive that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year.

A one-sample *t* test was conducted to test H4. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

The results of the one-sample *t* test indicated that there was not a statistically significant difference between the group mean and the test value, $t(189) = 1.361$, $p = .175$. The sample mean ($M = 3.06$, $SD = 0.61$) was not significantly different from the test value (3). H4 was not supported. Kansas principals perceive that crisis preparedness activities associated with internal security were occasionally present in their buildings during the 2019-2020 school year.

RQ4. To what extent are Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year affected by school level and location?

H5. Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H5. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a

numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by eta-squared, is reported.

The results of the analysis indicated a statistically significant difference between at least two of the means, $F(4, 185) = 7.026$, $p = .000$, $\eta^2 = 0.132$. See Table 6 for the means and standard deviations for this analysis. A follow-up post hoc was conducted to determine which pairs of means were different. The Tukey's HSD post hoc was conducted at $\alpha = .05$. Two of the differences were significant. The high school principals' mean ($M = 3.42$) was higher than the elementary school principals' mean ($M = 2.92$) and the district principals' mean ($M = 2.68$). H5 was supported. The effect size indicated a small effect. Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year were affected by school level.

Table 6

Descriptive Statistics for the Results of the Test for H5

School Level	*M*	*SD*	*N*
Elementary	2.92	0.54	95
Middle	3.10	0.59	20
High	3.42	0.66	46
District	2.68	0.49	12
Other	3.10	0.59	17

H6. Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H6. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

The results of the analysis indicated a statistically significant difference between at least two of the means, $F(3, 186) = 4.551$, $p = .004$, $\eta^2 = 0.068$. See Table 7 for the means and standard deviations for this analysis. A follow-up post hoc was conducted to determine which pairs of means were different. The Tukey's Honestly Significant Difference (HSD) post hoc was conducted at $\alpha = .05$. Two of the differences were significant. The suburban principals' mean ($M = 3.41$) was higher than the town principals' mean ($M = 3.00$) and the rural principals' mean ($M = 2.96$). H6 was supported. The effect size indicated a small effect. Kansas principals' perceptions that crisis preparedness activities associated with internal security were present in their buildings during the 2019-2020 school year were affected by school location.

Table 7

Descriptive Statistics for the Results of the Test for H6

School Location	*M*	*SD*	*N*
City	3.05	0.50	31
Rural	2.96	0.58	85
Suburban	3.41	0.62	32
Town	3.00	0.66	42

RQ5. To what extent do Kansas principals perceive that crisis preparedness development associated with safety preparedness was practiced in their building during the 2019-2020 school year?

H7. Kansas principals perceive that crisis preparedness development associated with safety preparedness were practiced in their buildings during the 2019-2020 school year.

A one-sample *t* test was conducted to test H7. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

The results of the one sample *t* test indicated a statistically significant difference between the group mean and the test value, $t(191) = -2.272$, $p = .024$, Cohen's $d = 0.17$. The sample mean ($M = 2.92$, $SD = 0.46$) was significantly lower than the test value (3). H7 was not supported. The effect size indicated a small effect. Kansas principals perceive that crisis preparedness development associated with safety preparedness were not practiced annually or bi-annually in their buildings during the 2019-2020 school year.

RQ6. To what extent are Kansas principals' perceptions that crisis preparedness development associated with safety preparedness was practiced in their buildings during the 2019-2020 school year affected by school level and location?

H8. Kansas principals' perceptions that crisis preparedness development associated with safety preparedness was practiced in their buildings during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H8. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by eta-squared, is reported.

The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F(4, 187) = 2.418$, $p = .050$. See Table 8 for the means and standard deviations for this analysis. No follow-up post hoc was warranted. H8 was not supported. Kansas principals' perceptions that crisis preparedness development associated with safety preparedness was practiced in their buildings during the 2019-2020 school year were not affected by school level.

Table 8

Descriptive Statistics for the Results of the Test for H8

School Level	*M*	*SD*	*N*
Elementary	2.98	0.51	97
Middle	3.03	0.36	19
High	2.89	0.43	45
District	2.60	0.30	13
Other	2.86	0.36	18

H9. Kansas principals' perceptions that crisis preparedness development associated with safety preparedness were practiced in their buildings during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H9. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by eta-squared, is reported.

The results of the analysis indicated a statistically significant difference between at least two of the means, $F(3, 188) = 5.563$, $p = .001$, $\eta^2 = 0.082$. See Table 9 for the means and standard deviations for this analysis. A follow-up post hoc was conducted to determine which pairs of means were different. The Tukey's Honestly Significant Difference (HSD) post hoc was conducted at $\alpha = .05$. Two of the differences were significant. The city principals' mean ($M = 3.06$) and the town principals' mean ($M = 3.05$) were higher than the rural principals' mean ($M = 2.78$). H9 was supported. The effect size indicated a small effect. Kansas principals' perceptions that crisis preparedness development associated with safety preparedness were practiced in their buildings during the 2019-2020 school year were affected by school location.

Table 9

Descriptive Statistics for the Results of the Test for H9

School Location	*M*	*SD*	*N*
City	3.06	0.52	32
Rural	2.78	0.43	87
Suburban	3.01	0.44	32
Town	3.05	0.41	41

RQ7. To what extent do Kansas principals perceive that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year?

H10. Kansas principals perceive that students were informed or drilled on the components of the school's crisis preparedness plan in their buildings during the 2019-2020 school year.

A one-sample *t* test was conducted to test H10. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

The results of the one sample *t* test indicated a statistically significant difference between the group mean and the test value, $t(187) = -13.403$, $p = .000$, Cohen's $d = 0.97$. The sample mean ($M = 2.63$, $SD = 0.38$) was significantly lower than the test value (3). H10 was not supported. The effect size indicated a large effect. Kansas principals perceive that students were never or occasionally informed or drilled on the components of the school's crisis preparedness plan in their buildings during the 2019-2020 school year.

RQ8. To what extent are Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year affected by school level and location?

H11. Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H11. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared,* is reported.

The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F(4, 183) = 0.325$, $p = .861$. See Table 10 for the means and standard deviations for this analysis. No follow-up post hoc was warranted. H11 was not supported. Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year were not affected by school level.

Table 10

Descriptive Statistics for the Results of the Test for H11

School Level	*M*	*SD*	*N*
Elementary	2.62	0.43	96
Middle	2.62	0.29	20
High	2.68	0.31	45
District	2.56	0.27	11
Other	2.66	0.36	16

H12. Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H12. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F(3, 184) = 0.287$, $p = .835$. See Table 11 for the means and standard deviations for this analysis. No follow-up post hoc was warranted. H12 was not supported. Kansas principals' perceptions that students were informed or drilled on the components of the school's crisis preparedness plan during the 2019-2020 school year were not affected by school location.

Table 11

Descriptive Statistics for the Results of the Test for H12

School Location	*M*	*SD*	*N*
City	2.63	0.36	31
Rural	2.61	0.40	85
Suburban	2.66	0.38	30
Town	2.67	0.34	42

RQ9. To what extent do Kansas principals perceive that first responder personnel were involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year?

H13. Kansas principals perceive that first responder personnel were involved with drills on the components of the school's crisis preparedness plan.

A one-sample *t* test was conducted to test H13. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

The results of the one sample *t* test indicated a statistically significant difference between the group mean and the test value, $t(188) = -22.147$, $p = .000$, Cohen's $d = 1.60$. The sample mean ($M = 2.12$, $SD = 0.55$) was significantly lower than the test value (3). H13 was not supported. The effect size indicated a large effect. Kansas principals perceive that first responders were never or occasionally involved with drills on the components of the school's crisis preparedness plan.

RQ10. To what extent are Kansas principals' perceptions that first responder personnel were involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year affected by school level and location?

H14. Kansas principals' perceptions that first responder personnel involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H14. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F(4, 184) = 1.310$, $p = .268$. See Table 12 for the means and standard deviations for this analysis. No follow-up post hoc was warranted. H14 was not supported. Kansas principals' perceptions that first responder personnel involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year were not affected by school level.

Table 12

Descriptive Statistics for the Results of the Test for H14

School Level	*M*	*SD*	*N*
Elementary	2.15	0.55	94
Middle	1.99	0.52	20
High	2.20	0.57	45
District	1.86	0.50	13
Other	2.11	0.47	17

H15. Kansas principals' perceptions that first responder personnel involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H15. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F(3, 185) = 1.934$, $p = .126$. See Table 13 for the means and standard deviations for this analysis. No follow-up post hoc was warranted. H15 was not supported. Kansas principals' perceptions that first responder personnel involved with drills on the components of the school's crisis preparedness plan during the 2019-2020 school year were not affected by school location.

Table 13

Descriptive Statistics for the Results of the Test for H15

School Location	*M*	*SD*	*N*
City	2.20	0.74	32
Rural	2.02	0.49	84
Suburban	2.17	0.40	29
Town	2.22	0.55	44

RQ11. To what extent do Kansas principals perceive that their school was prepared for a crisis during the 2019-2020 school year?

H16. Kansas principals perceive that their school was prepared for a crisis during the 2019-2020 school year.

A one-sample *t* test was conducted to test H16. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

The results of the one-sample *t* test indicated that there was not a statistically significant difference between the group mean and the test value, $t(188) = 1.270$, $p = .206$. The sample mean ($M = 3.07$, $SD = 0.72$) was not significantly different from the test value (3). H16 was not supported. Kansas principals perceive that their schools were not well prepared or extremely well prepared for a crisis during the 2019-2020 school year.

RQ12. To what extent are Kansas principals' perceptions that their school was prepared for a crisis during the 2019-2020 school year were affected by school level and location?

H17. Kansas principals' perceptions that their school was prepared for a crisis during the 2019-2020 school year were affected by school level.

A one-factor ANOVA was conducted to test H17. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F(4, 184) = 1.882$, $p = .115$. See Table 14

for the means and standard deviations for this analysis. No follow-up post hoc was warranted. H17 was not supported. Kansas principals' perceptions that their school was prepared for a crisis during the 2019-2020 school year were not affected by school level.

Table 14

Descriptive Statistics for the Results of the Test for H17

School Level	*M*	*SD*	*N*
Elementary	3.12	0.72	96
Middle	2.81	0.75	19
High	3.18	0.68	44
District	2.72	0.76	13
Other	3.01	0.62	17

H18. Kansas principals' perceptions that their school was prepared for a crisis during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H18. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F(3, 185) = 2.456$, $p = .065$. See Table 15 for the means and standard deviations for this analysis. No follow-up post hoc was warranted. H18 was not supported. Kansas principals' perceptions that their school was

prepared for a crisis during the 2019-2020 school year were not affected by school location.

Table 15

Descriptive Statistics for the Results of the Test for H18

School Location	*M*	*SD*	*N*
City	3.15	0.67	31
Rural	2.92	0.66	85
Suburban	3.30	0.69	29
Town	3.13	0.82	44

RQ13. To what extent do Kansas principals perceive that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year?

H19. Kansas principals perceive that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year.

A one-sample *t* test was conducted to test H19. The average Kansas principal's perception was compared to a test value of 3. The one-sample *t* test was chosen for the hypothesis testing because it involves the comparison of one group mean with a known value, and the group mean is a numerical variable. The level of significance was set at .05. When appropriate, the effect size, as indexed by Cohen's *d*, is reported.

The results of the one sample *t* test indicated a statistically significant difference between the group mean and the test value, $t(183) = -12.139$, $p = .000$, Cohen's $d = 0.89$. The sample mean ($M = 2.25$, $SD = 0.84$) was significantly lower than the test value (3).

H19 was not supported. The effect size indicated a large effect. Kansas principals perceive that safety preparedness efforts to maintain a safe and secure school were slightly to somewhat influenced by external and internal factors during the 2019-2020 school year.

RQ14. To what extent are Kansas principals' perceptions that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year were affected by school level and location?

H20. Kansas principals' perceptions that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year affected by school level.

A one-factor ANOVA was conducted to test H20. The categorical variable used to group the principals' perceptions was school level (elementary, middle, high). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F(4, 179) = 0.214$, $p = .930$. See Table 16 for the means and standard deviations for this analysis. No follow-up post hoc was warranted. H20 was not supported. Kansas principals' perceptions that safety preparedness efforts to maintain a safe and secure school were influenced by external and internal factors during the 2019-2020 school year were not affected by school level.

Table 16

Descriptive Statistics for the Results of the Test for H20

School Level	*M*	*SD*	*N*
Elementary	2.26	0.84	96
Middle	2.25	0.82	18
High	2.21	0.90	40
District	2.10	0.77	13
Other	2.37	0.86	17

H21. Kansas principals' perception that safety preparedness efforts to maintain a safe and secure school influenced by external and internal factors during the 2019-2020 school year were affected by school location.

A one-factor ANOVA was conducted to test H21. The categorical variable used to group the principals' perceptions was school location (city, suburban, town, rural). The results of the one-factor ANOVA can be used to test for differences in the means for a numerical variable among three or more groups. The level of significance was set at .05. When appropriate, an effect size, as indexed by *eta-squared*, is reported.

The results of the analysis indicated a statistically significant difference between at least two of the means, $F(3, 180) = 4.617$, $p = .004$, $\eta^2 = 0.071$. See Table 17 for the means and standard deviations for this analysis. A follow-up post hoc was conducted to determine which pairs of means were different. The Tukey's Honestly Significant Difference (HSD) post hoc was conducted at $\alpha = .05$. Two of the differences were significant. The city principals' mean ($M = 2.55$) and the town principals' mean ($M = 2.34$) were higher than the suburban principals' mean ($M = 1.80$). H21 was

supported. The effect size indicated a small effect. Kansas principals' perception that safety preparedness efforts to maintain a safe and secure school influenced by external and internal factors during the 2019-2020 school year were affected by school location.

Table 17

Descriptive Statistics for the Results of the Test for H21

School Location	*M*	*SD*	*N*
City	2.55	1.04	31
Rural	2.26	0.75	83
Suburban	1.80	0.74	30
Town	2.34	0.81	40

Summary

Chapter four provided the descriptive statistics of the research data and summarized results from the hypothesis testing related to Kansas principals' perceptions of crisis preparedness. The results of the one-sample *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

This chapter begins with a summary of Kansas principals' perceptions of crisis preparedness. Chapter 5 then provides an overview of the problem statement, purpose statement, research questions, methodology, major findings, and a discussion of the findings related to the literature. Chapter 5 closes with implications for action, recommendations for future research, and concluding remarks.

Study Summary

Kansas principals' perceptions of crisis preparedness were studied. The areas studied were: 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 from this study could help educational leaders evaluate the readiness of their schools should a traumatic event occur. This section includes an overview of the problem, the purpose statement and research questions, an overview of the methodology, and the major findings.

Overview of the problem. Providing a safe learning environment is an important goal of educational institutions. School leaders strive to provide days without traumatic events. However, crises unfortunately occur, and principals in Kansas are not immune to school crises. Although crisis preparedness plans may differ among various buildings and locations, school leaders follow safety plans when emergencies arise.

School districts have invested money to upgrade security features, but ongoing training helps staff members feel more prepared in an emergency. School safety is very

important, and many researchers have examined the crisis preparedness of various schools. Prior to this research being conducted, Kansas principals' perceptions of crisis preparedness had not been studied.

Purpose statement and research questions. The purpose of this study was to determine principals' perceptions of crisis preparedness planning related to access and identification, internal security, safety preparedness, crisis preparedness plan, drills on crisis preparedness plan, and external and internal factors. The second purpose of this study was to determine if crisis preparedness perceptions of principals varied among school levels (elementary, middle school, and high school) and school location (city, suburban, town, and rural). To achieve the purposes of this study, 14 research questions were posed, and 21 hypotheses were tested.

Review of the methodology. A quantitative research design was utilized to determine Kansas principals'' perceptions of crisis preparedness. During the 2019-2020 school year, principals from the state of Kansas served as the sample. The survey items used in this study were originally developed by Alba (2011) for his study of Rhode Island principals and were modified by Carter (2019) to fit the population of Kansas principals. Data were collected through Google Forms, an online survey tool. The independent variables for this study were the school level (elementary, middle, or high school) and school location (city, suburban, town, or rural). The dependent variables in the study were principals' perceptions of crisis preparedness planning related to access and identification, internal security, safety preparedness, preparedness plans, drills on crisis preparedness plan, and the impact of external and internal factors. Once data was collected, the following statistical testing occurred: one-sample *t* tests (to determine if the

population mean was significantly different from the hypothesized value) and one-factor ANOVAs (to compare the means among three or more groups to determine if statistical differences).

Major findings. The purpose of this study was to identify Kansas principals' perceptions of crisis preparedness. This study was conducted during the 2019-2020 school year. The following areas were studied: 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 from this study were mixed.

Results indicate that principals perceive crisis preparedness activities associated with access and identification were present occasionally or often in their buildings during the 2019-2020 school year. In addition, during the 2019-2020 school year in their buildings, Kansas principals perceive that:

- crisis preparedness activities associated with internal security were occasionally present in their buildings
- crisis preparedness development associated with safety preparedness were not practiced bi-annually or quarterly
- students were never or occasionally informed or drilled on the components of the school's crisis preparedness plan
- first responders were never or occasionally involved with drills on the components of the school's crisis preparedness plan
- their schools were not well or extremely prepared for a crisis

- safety preparedness efforts to maintain a safe and secure school were slightly to somewhat influenced by external and internal factors.

The results related to whether building level or location affects Kansas principals' perceptions of crisis preparedness were mixed. The results indicated that building level affected Kansas principals' perceptions of crisis preparedness with regards to access and identification and internal security in their buildings during the 2019-2020 school year. Results also indicated that building location affected Kansas principals' perceptions with regards to access and identification, internal security, preparedness development, and external and internal factors during the 2019-2020 school year. Building location did not affect Kansas principals' perceptions of preparedness for student activities, preparedness for first responder activities, levels of preparedness, or influences on efforts towards safety preparedness.

Findings Related to the Literature

This section focuses on findings related to the literature. Chapter 2 identified similar studies completed by previous researchers. Those studies were conducted in numerous states across the U.S, but no researcher has conducted this study in Kansas. This section describes whether the current study supports or is in contrast with previous research.

This study examined Kansas principals' perceptions of crisis preparedness. An abundance of research has been conducted about perceptions of counselors, teachers, superintendents, and support staff. Researchers have also completed studies on principals' perceptions of crisis preparedness. However, no research has been completed on principal perceptions of crisis preparedness in the state of Kansas.

Early (2003) studied Alabama principals, and the results indicated that principals perceived their schools provided safe learning environments. However, principals in Early's (2003) study indicated they were not provided training in security systems. The current study's results support school principals' perceptions of providing a safe learning environment. However, the results of this current study are in contrast with internal security preparedness because principals in Kansas perceive that crisis preparedness activities associated with internal security were present.

Boyd (2011) collected data from Southern Mississippi administrators. Administrators at all levels (elementary, middle, and high school) in Boyd's (2011) study indicated they were prepared to respond to acts of violence. The results of the current study are in contrast to results from Boyd's study because Kansas principals indicated that their schools were not well or extremely well prepared for a crisis during the 2019-2020 school year.

Swiontek (2009) studied administrators in North Dakota. Results from Swiontek's (2009) study indicated a majority of school districts have emergency plans that address most types of disasters but that schools could improve their emergency training. The results of the current study indicate schools are not prepared because safety preparedness is not practiced bi-annually or quarterly in their buildings. The results of the current study support the findings of Swiontek's (2009) study.

Tigges (2009) studied Iowa principals' perceptions of natural disasters, and results of his research indicated schools had emergency plans on file and administrators felt prepared to handle a crisis. Principal perceptions from the current study indicate their

schools were not well or extremely prepared for a crisis. The results of the current study contrast with Tigges's (2009) findings.

Alba (2011) studied Rhode Island principals' perceptions of crisis preparedness. Results from Alba's (2011) study indicated there was a difference in crisis preparedness perception among administrators at different levels and different locations. The results of the current study support Alba's (2011) finding because Kansas principals' perceptions of crisis preparedness varied based on school location and school level.

Lynch (2013) conducted a study on principal perceptions of crisis preparedness. Results from Lynch's (2013) study indicated principals were prepared to handle crises when written plans were available and practiced. The results of the current study are in contrast to Lynch's findings because principals in the current study perceived that crisis preparedness associated with safety preparedness was not practiced bi-annually or quarterly.

Umoh (2013) indicated principals were prepared to handle a crisis when good communication with law enforcement occurred. Law enforcement personnel were a part of the first responders' team in both studies. The results of the current study indicate principals were not prepared to handle a crisis because of the lack of collaboration with first responders.

Daughtry (2015) studied administrators in the South Carolina region. Results from Daughtry's (2015) study indicated additional training with crisis intervention was not necessary to be sufficiently prepared for a crisis. The results of the current study also indicate more student drills are needed since students were never or occasionally informed or drilled on the components of the school's crisis preparedness plan.

Conclusions

The findings from this study provide insight for principals involved with crisis preparedness planning. This study provides insight into what principals perceive about the seven areas of crisis preparedness within their school buildings. The following section includes the implications for action, recommendations for future research, and the concluding remarks.

Implications for action. Based on the findings that Kansas principals perceived crisis preparedness development associated with access and identification were present occasionally to often in their buildings, principals should consider regularly reviewing and updating access and identification points within their buildings. Findings indicate internal security was occasionally present; therefore, principals should consider regularly collaborating with law enforcement to review and update their internal security systems. Results indicate Kansas principals perceive crisis preparedness development associated with safety preparedness were not practiced bi-annually or quarterly in their buildings; therefore, principals should consider improving their communication of safety drills by varying types of safety drills schools practice. Kansas principals perceive that student drills were never or occasionally informed or drilled on the components of the school's crisis preparedness plan in their buildings. Based on this finding, principals should consider holding more informational sessions about safety drills and creating more visible indicators of what students should do during a crisis event. Based on the findings that Kansas principals perceive first responders were never or occasionally involved with drills on the components of the school's crisis preparedness plan, principals should consider inviting first responders to participate in crisis preparedness drills. Principals

should also consider providing more visible preparedness literature around school buildings plus holding more safety drills with the presence of law enforcement because Kansas principals perceived that schools were not well or extremely prepared for a crisis during the school year. Kansas principals perceive that preparedness efforts to maintain a safe and secure school were influenced by external and internal factors; however, preparedness efforts for safe and secure schools were not affected by school level. Based on this finding, principals should consider laterally collaborating with other administrators in their school system to ensure safety preparedness is a communal effort. Principals should also consider collaborating with administrators from similar geographical locations to compare safety protocols because Kansas principals perceived that safety preparedness efforts to maintain a safe and secure school influenced by external and internal factors were affected by school location.

Policymakers in Kansas could use this research to determine if current mandates are adequate for safe schools. Although laws implicate how schools should operate, lawmakers might reevaluate the effectiveness of school safety laws based on the perception results from this study. Also, policymakers could use the crisis preparedness perceptions of school leaders to determine funding for various levels and locations.

Results from this study suggest areas of improvement based on school building level and location. Kansas principals might evaluate building crisis preparedness plans to determine if their preparedness plans align with schools of similar levels and locations. Also, principals could assess staff and student awareness of crisis preparedness by utilizing the research questions from this study to examine perceptions of their buildings' staff and students.

Results from this study suggest areas of improvement for school safety and might guide Kansas principals to evaluate the crisis preparedness plans within their buildings. Principals could also determine if their preparedness levels align with schools of similar levels and location. Also, principals could assess their buildings awareness of crisis preparedness by utilizing the research questions from this study to examine perceptions of their buildings staff and students.

Recommendations for future research. Few research studies exist on principal perceptions of crisis preparedness, so future researchers or administrators might conduct similar studies in their state or school district. School leaders from other states could also use this research to evaluate the preparedness of their school districts. School leaders could also make geographic comparison of this study's results to perceptions of principals in their specific location.

Future researchers in the state of Kansas could conduct their research when a global pandemic is not occurring. This study began prior to the COVID-19 global pandemic. By the time the surveys were ready to be emailed, all schools in the state of Kansas shut down as an emergency protocol. Therefore, principal response rates might be higher than the 197 responses out of 1,211 principals if principals had not been addressing a national emergency.

In this study, 21 hypotheses were tested. Future researchers might consider conducting personal interviews. Additionally, future researchers might narrow down the number of focus areas and ask more in-depth and clarifying questions for the specific area of interest. Also, future researchers could expand the number of hypotheses to include other types of emergencies that were not addressed in this study.

Future researchers might expand their sample. This study focused only on the building principal. Assistant principals might be included in future research. Also, parents, students, or community members could be included in future research

Concluding remarks. This study focused on Kansas principals' perceptions of crisis preparedness. Results indicate that preparedness in various building levels and building locations could use improvement. It is possible that administrators perceived things from a vantage point of the COVID-19 global pandemic that occurred during the data collection phase of this research, and principals might not have felt adequately prepared in other school safety areas. Thus, causing perceptions to shift based on the emergency school closures that instantaneously occurred during COVID-19. Results from this study could lead to further research on crisis preparedness in other states, narrowing the hypotheses tested, include assistant principals in future research, or conduct research during a non-pandemic era. The safety of students will always be a top priority for an administrator, and ongoing crisis preparedness training might help principals become more confident if a crisis should occur in their building.

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Appendices

Appendix A: Perceptions of Crisis Preparedness

Thank you for volunteering to participate in the Perceptions of Crisis Preparedness Survey. This survey consists of 59 multiple-choice items and 2 open –ended response questions. You should be able to complete the entire survey in approximately 20 minutes. Your responses will remain anonymous and will be combined with the responses of other Kansas principals. Data from this survey will be used to extend research into the current practices and policies in the area of school safety. Findings from this study will be used to make a report upon existing conditions and make recommendations to further develop best practice.

I. Access & Identification

To what extent are the following practices in place at your school/district during the 2019-2020 school year?

	Never	Rarely	Occasionally	Often	Always
1. Require all visitors to report directly to the main office upon entering the building					
2. Control access to the school buildings during school hours by having all external doors locked					
3. Use a buzzer system to allow visitor access to the building					
4. Use one or more security cameras to monitor external doors					
5. Require students to wear picture ID badges					
6. Require faculty and staff to wear picture ID badges					
7. Require central services personnel to wear picture ID badges					
8. Require visitors (parents, guests, etc.) to wear badges or stickers					
9. Require visitors to enter through one door for controlled access					
10. Use of hand wands to detect weapons					

II. Internal Security

To what extent are the following practices in place at your school/district during the 2019-2020 school year?

	Never	Rarely	Occasionally	Often	Always
11. Use one or more security cameras to monitor interior portions of the building					
12. Perform one or more random sweeps for contraband (e.g. drugs or weapons)					
13. Require students to use clear book bags or ban book bags during the school day					
14. Provide all teachers with interior door key(s)					
15. Provide all support personnel (paraprofessionals, itinerants, aides) with interior door keys(s)					
16. Provide all substitute teachers with interior door key(s)					
17. Have all interior door keys capable of locking and unlocking all interior doors within the building (master key)					
18. Have a full-time School Resource Officer (SRO) or Security Officer assigned to the building					
19. Have a full-time School Nurse (RN or LPN) assigned to the building					
20. Provide two-way radios to any staff					

III. Safety Preparedness Development

During the 2019-2020 school year, is it a practice at your building to do the following?

	Never	Rarely (2 yrs. or later)	Occasionally (annually)	Often (bi-annually)	Always (quarterly)
21. Refine the building's emergency/crisis plan utilizing research-based, best practice guidelines (e.g., National Incident Management System [NIMS] or The U.S. ED Guide on School Crisis Planning)					
22. Review the building's emergency/crisis plan in collaboration with local first responders (police and/or fire rescue personnel)					
23. Review the building's emergency/crisis plan with teachers/staff					
24. Taken any courses or training specific to school crisis preparedness (including yourself and/or any faculty/staff)					

IV. Safety Preparedness Activities: Students

During the 2019-2020 school year, how often are students drilled on the following written components of your school'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)
25. Fire					
26. Natural disasters (e.g., tornadoes, earthquakes, or floods)					
27. Armed intruder					
28. Hostages					
29. Bomb threats or incidents					
30. Chemical, biological, or radiological threats or incidents (e.g., release of mustard gas, anthrax, smallpox, or radioactive materials)					
31. Suicide threat or incident					
32. The U.S. national threat level is changed to Red (Severe Risk of Terrorist Attach) by the Department of Homeland Security					
33. Pandemic Flu					

V. Safety Preparedness Activities: First Responders

During the 2019-2020 school year, how often are first responder personnel (e.g., police or fire) involved with drills of the following written components of your building'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)
34. Fire					
35. Natural disasters (e.g., tornadoes, earthquakes, or floods)					
36. Armed intruder					
37. Hostages					
38. Bomb threats or incidents					
39. Chemical, biological, or radiological threats or incidents (e.g., release of mustard gas, anthrax, smallpox, or radioactive materials)					
40. Suicide threat or incident					
41. The U.S. national threat level is changed to Red (Severe Risk of Terrorist Attach) by the Department of Homeland Security					
42. Pandemic Flu					

VI. Levels of Preparedness

During the 2019-2020 school year, how prepared do you feel your building is with regards to the following?

	Not at all prepared	Somewhat Prepared	Prepared	Well Prepared	Extremely well prepared
43. Having a disaster plan					
44. Conduction of drills and exercises					
45. Being trained in emergency response					
46. Having appropriate emergency equipment and supplies					
47. Capacity to shelter students for at least 24 continuous hours					
48. Overall preparedness					

VII. Influences on Efforts towards Safety Preparedness

To what extend do the following factors influence your efforts to maintain a safe and secure school?

	Not at all Influential	Slightly Influential	Somewhat Influential	Very Influential	Extremely Influential
49. Lack of inadequate teacher training in classroom management					
50. Likelihood of complaints from parents					
51. Lack of teacher support for school policies					
52. Lack of parent support for school policies					
53. Lack of district support for school policies					
54. Fear of litigation					
55. Inadequate funds					

56. Fear of district or state reprisal					
57. Federal, state, or district policies on disciplining special education students					
58. Federal, state, or district policies on discipline and safety other than those for special education students					
59. Lack of time					

Directions: For each of the following please check the box that best reflects your answer to the question.

VIII. Background

60. Building Level
    a. Elementary (PK-5)
    b. Elementary (K-8)
    c. Middle (6-8)
    d. High (9-12)
    e. Other

61. Location
    a. City - Territory inside an urbanized area (50,000 or more people) and inside of a principal city
    b. Suburban - Territory inside an urbanized area (50,000 or more people) and outside a principal city
    c. Town - Territory inside an urbanized cluster (2,500-49,999 people)
    d. Rural - Territory not included within an urban area or urban cluster

This completes the survey.
Thank you for taking time out of your busy day to complete this survey.

Appendix B: IRB Approval

Baker University Institutional Review Board

January 29th, 2020

Dear Michelle Lee and Susan Rogers,

The Baker University IRB has reviewed your 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.
6. If this project is not completed within a year, you must renew IRB approval.

If you have any questions, please contact me at npoell@bakeru.edu or 785.594.4582.

Sincerely,

Nathan Poell, MLS
Chair, Baker University IRB

Baker University IRB Committee
Scott Crenshaw
Sara Crump, PhD
Jamin Perry, PhD
Susan Rogers, PhD

Appendix C: First Emailed Survey to Kansas Principals

To: Kansas Principals

From: Michelle Lee [MichelleELee@stu.bakeru.edu]

Subject: Kansas Principals' Perceptions of Crisis Preparedness

Dear Colleague,

You have been selected to participate in a study of Kansas Principals' Perceptions of Crisis Preparedness. Your responses will be combined with responses from other administrators in the state of Kansas. Your responses will remain anonymous and your name will never be used. Under no circumstances will individual data be shared or reported. Please complete the survey by clicking on the link at the end of this email by **April 13, 2020**.

The survey consists of 59 close-ended items and 2 multiple-choice questions. It should take about 10 minutes to complete this survey. Your participation in this research is voluntary and you may choose to withdraw at any time without penalty or repercussion. You may choose not to answer some or all of the questions

If you have any questions or concerns about your rights as a research participant, please contact me (MichelleELee@stu.bakeru.edu or 913-228-0815). Should you have any other questions, please contact me or my major advisor, Dr. Susan Rogers (srogers@bakeru.edu or 785-230-2801).

Thank you for taking time out of your busy day to complete this survey. Please click on the link below.

https://forms.gle/C8X7iba2cyjChWJg7

Sincerely,

Michelle E. Lee
Baker University Doctoral Candidate

Appendix D: 1st Follow-up Emailed Survey to Kansas Principals

Dear Kansas Principals,

Two weeks ago, you were sent an email asking you to participate in a study of Kansas Principals' Perceptions of Crisis Preparedness. If you have already responded, thank you for participating. If you have not responded, please consider responding because I need additional participants in order to have a viable study.

Your responses will be combined with responses from other administrators in the state of Kansas. Your responses will remain anonymous and your name will never be used. Under no circumstances will individual data be shared or reported. Please complete the survey by clicking on the link at the end of this email by **April 20, 2020**.

The survey consists of 59 close-ended items and 2 multiple-choice questions. It should take about 10 minutes to complete this survey. Your participation in this research is voluntary and you may choose to withdraw at any time without penalty or repercussion. You may choose not to answer some or all of the questions

If you have any questions or concerns about your rights as a research participant, please contact me (MichelleELee@stu.bakeru.edu or 913-228-0815). Should you have any other questions, please contact me or my major advisor, Dr. Susan Rogers (srogers@bakeru.edu or 785-230-2801).

Thank you for taking time out of your busy day to complete this survey. Please click on the link below.

https://forms.gle/C8X7iba2cyjChWJg7

Sincerely,

Michelle E. Lee
Baker University Doctoral Candidate

Appendix E: Second Follow-up Emailed Survey to Kansas Principals

Dear Kansas Principals,

Two weeks ago, you were sent an email asking you to participate in a study of Kansas Principals' Perceptions of Crisis Preparedness. If you have already responded, thank you for participating. If you have not responded, please consider responding because I need additional participants in order to have a viable study.

Your responses will be combined with responses from other administrators in the state of Kansas. Your responses will remain anonymous and your name will never be used. Under no circumstances will individual data be shared or reported. Please complete the survey by clicking on the link at the end of this email by **May 4, 2020**.

The survey consists of 59 close-ended items and 2 multiple-choice questions. It should take about 10 minutes to complete this survey. Your participation in this research is voluntary and you may choose to withdraw at any time without penalty or repercussion. You may choose not to answer some or all of the questions

If you have any questions or concerns about your rights as a research participant, please contact me (MichelleELee@stu.bakeru.edu or 913-228-0815). Should you have any other questions, please contact me or my major advisor, Dr. Susan Rogers (srogers@bakeru.edu or 785-230-2801).

Thank you for taking time out of your busy day to complete this survey. Please click on the link below.

https://forms.gle/C8X7iba2cyjChWJg7

Sincerely,

Michelle E. Lee
Baker University Doctoral Candidate

Appendix F: Final Email Survey to Kansas Principals

Dear Kansas Principals,

Previously, you were sent an email asking you to participate in a study of Kansas Principals' Perceptions of Crisis Preparedness. If you have already responded, thank you for participating. If you have not responded, please consider responding because I need additional participants in order to have a viable study and complete my doctoral program.

Your responses will be combined with responses from other administrators in the state of Kansas. Your responses will remain anonymous and your name will never be used. Under no circumstances will individual data be shared or reported. Please complete the survey by clicking on the link at the end of this email by **June 30, 2020**.

The survey consists of 59 close-ended items and 2 multiple-choice questions. It should take about 10 minutes to complete this survey. Your participation in this research is voluntary and you may choose to withdraw at any time without penalty or repercussion. You may choose not to answer some or all of the questions

If you have any questions or concerns about your rights as a research participant, please contact me(MichelleELee@stu.bakeru.edu or 913-228-0815). Should you have any other questions, please contact me or my major advisor, Dr. Susan Rogers (srogers@bakeru.edu or 785-230-2801).

Thank you for taking time out of your busy day to complete this survey. Please click on the link below.

https://forms.gle/C8X7iba2cyjChWJg7

Sincerely,

Michelle E. Lee
Baker University Doctoral Candidate

Appendix G: Frequency and Percentages for Original School Level Categories

Table G1

Frequency and Percentages for Original School Level Categories

School Level	Frequency	%
Elementary (PK-5)	89	45.2
Elementary (K-8)	9	4.6
Middle (6-8)	20	10.2
High (9-12)	46	23.4
PK-12	3	1.5
PreK-12	3	1.5
PK-6	3	1.5
7-12	2	1.0
6-12	2	1.0
K-12 system	1	0.5
PK-1	1	0.5
Middle and High (5-12)	1	0.5
Elementary Principal & Supt.	1	0.5
Elementary (K-5)	1	0.5
Superintendent	1	0.5
Kindergarten - 5th grade	1	0.5
K-12	1	0.5
7-12	1	0.5
Pre K-6	1	0.5
Elementary (PK-6)	1	0.5
5-6	1	0.5
Pk-5 and 9-12	1	0.5
4-12 building	1	0.5

K-6 and 7-12 building directly across the street from each other	1	0.5
Pre-K - 6th grade	1	0.5
K-12 Building	1	0.5
Daycare; PK-12	1	0.5
Pk-12	1	0.5
7-12	1	0.5