

**K-12 Parent and Staff Perceptions of
ALICE Active Shooter Response Training**

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Abstract

The purpose of this study was to explore the perceptions of staff and parents related to the implementation of the ALICE active shooter response training. Survey data was collected from parents and staff members from District A, a large suburban district in the Kansas City metropolitan area. The samples consisted of 841 parents and 2,235 staff in District A from September 2014 to March 2015.

Results revealed that parents and staff who responded to the survey understood all the concepts of ALICE. Both parents and staff agreed or strongly agreed that schools have the ability to handle a critical intruder incident and that overall schools are safer as a result of the ALICE training. Both elementary parents and staff agreed more strongly than middle school parents agreed that the school has the ability to handle a critical intruder incident using the ALICE plan. There were no differences in parent perceptions based on gender. However, there was a marginal gender difference in staff perceptions of the ALICE plan. Female staff agreed less strongly than male staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. Parents and staff agreed that staff and students would be able to implement all aspects (Alert, Lockdown, Inform, Counter, and Evacuate) of the ALICE plan in a crisis/intruder situation.

School safety will always be a topic of concern, and stakeholder perceptions will always play a crucial role in the successful implementation of shooter response planning (Underhill, 2012). School district leaders should consider the results of this study in safety planning in preparation for active shooter situations. The current study provides a reference for stakeholder perceptions as district leaders formulate safety action plans in

relation to ALICE. Although several school systems across the country have successfully implemented the ALICE plan, some districts are apprehensive about moving away from traditional lockdown protocols. Because District A is one of the first large districts in Kansas to implement a comprehensive systemic rollout of the ALICE plan, results may also be helpful to other large districts and administrators nationwide. The positive stakeholder perceptions of ALICE in District A should encourage other school systems to implement the ALICE shooter response plan.

Dedication

This dissertation is dedicated to the following individuals:

First, I want to dedicate this dissertation to Michelle Gay and all the other parents who have lost children in school shootings. Thank you, Michelle for your selflessness, courage, and leadership in making schools safer for all children.

I dedicate my dissertation to my family, who have supported, encouraged, and endured throughout the dissertation process. First and foremost, I must thank my loving wife, Dr. Jessica Dain for her unwavering support, encouragement, and patience. Thank you for sacrifice and understanding. I am forever grateful for your wisdom, guidance, and emotional strength. Your love, support, and understanding enabled me to complete this challenging journey, and I look forward to spending more time with the most important person in my life. I am grateful to my beautiful children, Andie, Ashton, and Brock for your unconditional love and understanding. Thank you for putting up with your dad leaving for class, working on this paper at home, and being a part-time dad for two years. I also thank my parents, Wes and Sandy Dain for their continued support and encouragement. Thank you for always nurturing my ambitions and allowing me to follow my dreams.

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Chapter One

Introduction

Sandy Hook and other school shooting events have established a sense of urgency surrounding school safety (Canfield, 2013; Dixon, 2014; Ripley, 2013; Severson, 2013; Siddiqui, 2014; Thomas, 2013; Wetterneck, Sass, & Davies, 2004). On December 14, 2012, a lone shooter entered Sandy Hook Elementary School in Newtown, Connecticut and in less than five minutes killed 27 people, including himself (State of Connecticut Division of Criminal Justice, Office of the State's Attorney Judicial District of Danbury [CDCJ], 2013). Newtown first responders entered the building nine minutes later (CDCJ, 2013).

Research has been reported that traditional school safety methods have been unsuccessful (Ergenbright & Hubbard, 2012; Klein, 2012). For decades, schools have used traditional lockdown methods that “are not sufficient to reduce the rate of kill” (Ergenbright & Hubbard, 2012, p. 5). The result is a growing death toll. “Between 1979 and 2011, 170 students and 110 school faculty or other adults were killed” (Klein, 2012, p. 63). By comparison, 19 students have died in tornados since 1978, and zero students have died in school fires since 1958. Event frequency has also increased over the years with nine school shootings in 2010, 10 in 2011, 15 in 2012 (Klein, 2012), 36 in 2013, and 60 in 2014 (Everytown for Gun Safety, 2014). The frequency of shooting incidents is paralleled by the increase in national, state, and community level attention that carries implications for action within the school environment (Fein et al., 2002, p. 9).

Background

Public education is conducted in a political landscape. Educational communities have stakeholders that influence the function of public schools. Local government, school boards, parents, teachers, staff, student, and community members frequently influence school system decisions. Unfortunately, the issue of school safety will always be a topic of concern, and stakeholder perceptions will always play a crucial role in the successful implementation of establishing a safe environment (Booren & Handy, 2009; Underhill, 2012).

District A is a large suburban district in the Kansas City metropolitan area. The city in which the district is located has grown from a small, rural town into a thriving diverse suburban community located twenty miles southwest of Kansas City, Missouri. During the 2014-2015 school year, District A's enrollment of 29,405 was housed in 56 educational facilities: 35 elementary schools, nine middle schools, four high schools, and eight specialty facilities. Within District A, there were 16,467 households that had students attending or receiving services from the district. District A employed 4,320 staff members that included 2,341 certified staff and 1,979 classified employees (personal communication, Communications Director, District A, September 26, 2014). The enrollment growth in the district has increased continuously for 49 years (see Figure 1). New residential construction has contributed to increased enrollment of the incoming kindergarten class, as well as hundreds of move-in additions of older students.

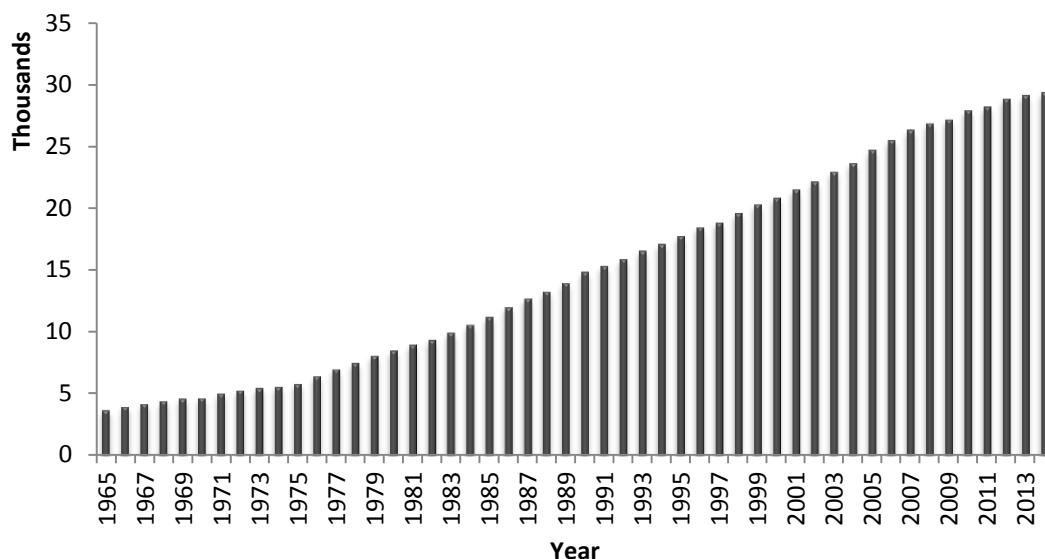


Figure 1: District A Enrollment, 1965-2014 bar graph represents the relationship of K-12 enrollment for each year over 49 years. The enrollment count is represented in thousands by the bars on the vertical y-axis, while the years are listed on the x-axis spanning the time from 1965 through 2014. Adapted from *Growth and facilities brochure* [fact sheet], by District A, 2014, September 26. Retrieved from District A website.

With continuous enrollment growth projected, the school district faces many challenges, including staffing, facilities, and funding. In response to this growth, community voters have supported 11 bond issues to construct 34 school buildings, and 82 school additions over the past 29 years. The district completed \$138 million and \$68 million bond proposals approved in 2007 and in 2008. With the community approving the \$244.8 million bond proposal in June of 2013, the district began developing plans for a fifth high school, a tenth middle school and at least three more elementary sites (District A, 2013). The 2013 bond, which was the 11th bond package in a row that voters approved, passed with nearly 80% approval. The school district has a long tradition of a

successful partnership with its community stakeholders composed mostly of parents who reside in the district (District A, 2013). With projected growth through 2040, maintaining a strong relationship with parents and staff as community stakeholders is always a priority for the district (District A, 2013).

Shortly following the December 2012 events at Sandy Hook, District A made a decision to address the issue of school safety differently than in the past. Given the unpredictable, yet potential danger of an active shooter, the school district wanted to take new action to prepare for such an incident (personal communication, Assistant Superintendent of General Administration, District A, September 11, 2013). In addition to spending bond funds to upgrade facility safety and create more barriers for dangerous intruders to circumvent, the district made a decision in 2013 to prepare for an active shooter event using the ALICE plan (personal communication, Assistant Superintendent of General Administration, District A, September 11, 2013). District A board of education approved the ALICE plan at the public forum board meeting on December 5, 2013. In preparation for a systemic implementation of the ALICE plan, the district selected a small group of administrators to receive training from the ALICE Training Institute. This eight-member group consisted of one high school administrator, three middle school principals, and four elementary principals. After the sixteen hour training, each was certified as an ALICE Trainer. These selected trainers were then sent out in the spring of 2014 to conduct staff training in all 55 educational facilities. The systemic training included all certified and classified staff members throughout the district. In March of 2014, a formal press release was extended to parents outlining the ALICE plan

and the implementation process (personal communication, Assistant Superintendent of General Administration, District A, September 11, 2013).

During the six-year span from 2009 to 2014, there were 154 school shootings in the United States (Everytown for Gun Safety, 2014; Klein, 2012). “The average duration of these active shooter incidents is 12.5 minutes. Conversely, the average response time for law enforcement is 18 minutes” (Ergenbright & Hubbard, 2012, p. 2). In the majority of these events, the response time far exceeds the incident duration (Ergenbright & Hubbard, 2012; U.S. Department of Homeland Security [DHS], 2008). This contrast has resulted in a rising number of injured or wounded individuals in American schools. In 1995, Watson explicated the nature of the problem when he stated, “Nowadays no school is immune to violence, but there are practical ways to increase a school’s resistance” (p. 57). Eighteen years later, Mitchell and Brendtro (2013) shared that “Youth are now arming themselves with the same high-capacity and military style weapons that polarize public debate on gun control” (p. 10).

Several perspectives regarding how to view and handle active shooters have emerged from the research (DHS, 2008; Mitchell & Brendtro, 2013; Watson, 1995). Some advocates have argued for legislation that would ban assault weapons such as military style rocket launchers, semiautomatic rifles, ammunition-feeding devices, pistols, and shotguns (Mitchell & Brendtro, 2013; Ripley, 2013; Siddiqui, 2014). Others have pled for new laws that would restrict the sale and/or purchase of firearms (Siddiqui, 2014; Mitchell & Brendtro, 2013; Ripley, 2013). Some have claimed that arming school personnel will serve as a defense and/or deterrent to threats. The National Conference of State Legislatures reported that only five states have passed legislation that would allow

schools to arm teachers and administrators (Severson, 2013, para. 5). In fact, the Kansas legislature passed a law in 2013 that would allow school districts to permit selected employees with concealed-carry permits to carry firearms in schools; however, schools are reluctant to proceed because of the added liability (Severson, 2013). Legal Counsel for School District A, shared that school insurance would be in jeopardy if school districts allow teachers to carry firearms, regardless of the potential deterrence to violence (personal communication, District A Legal Counsel, January 27, 2014).

In addition to gun regulations, state and local governments continue to take measures to improve structural integrity of facilities to reinforce safety and create more barriers for dangerous intruders to circumvent. Connecticut preceded many states in mandating safety improvement to school facilities and infrastructures. Connecticut senators passed a bill that funded installation of security cameras, bulletproof glass, panic buttons, and safe rooms (Thomas, 2013). Schools across the country have installed similar security devices in an attempt to prevent school shootings (Ergenbright & Hubbard, 2012; Phaneuf, 2009; Thomas, 2013). These decisions are also controversial. Phaneuf (2009) found that the use of school security devices like metal detectors, surveillance cameras, and security guards actually negatively “affects student fear and bonding indirectly by creating a less positive school climate which then increases student fear and lowers student bonding” (p. 45). Arming personnel and installing security devices may enhance overall facility security; however, training staff may be the most valuable defense against active shooter events (Ergenbright & Hubbard, 2012; Padgett, 2006; Watson, 1995).

The United States Secret Service and the Department of Education (DOE) joined forces to investigate the causes behind school shootings. The results of the investigations revealed that there were some cases of violentization; however, researchers were unable to produce an accurate profile that would help narrow predictions regarding school shootings. The broad scope and varying backgrounds of shooters make it impossible to profile students or predict possible perpetrators (Ergenbright & Hubbard, 2012; Fein, et al., 2002; Wetterneck, et al., 2004). Mitchell and Brendtro (2013) concluded, “Attempts to identify likely attackers would sweep up many youth who pose no risk and miss some who do” (p. 9). Instead of focusing on “risk prediction,” results showed the more practical need for “risk prevention” (Mitchell & Brendtro, 2013, p. 9). Mitchell and Brendtro (2013) recommended risk prevention efforts that focus on creating a positive climate with caring adults and students who treat one-another with respect. Anti-bullying programs and positive climate efforts are supported by research as viable prevention strategies (Booren & Handy, 2009; Foster, 2002; Mitchell & Brendtro, 2013; Wilson-Simmons, Dash, Tehranifar, O'Donnell, & Stueve, 2006). Nonetheless, events like Sandy Hook have shown that tragedy can occur despite efforts to create a positive school and community climate (Canfield, 2013; Ripley, 2013; Severson, 2013; Thomas, 2013).

Regardless of gun regulation efforts, structural enhancements, threat prediction strategies, and positive school climate programs, school shooting incidents have risen to an all-time high (Blad, 2014; Klein, 2012). Therefore, educational communities have continued to search for training and protocol to address the possibility of an active shooter event. Since 1995, the Association of Supervision and Curriculum Development (ASCD) has supported the strategies that prepare students and staff for dangerous

intruder scenarios (Watson, 1995). Although traditional crisis planning is essential, preparing staff for active shooters must become a priority. “Staff members may not know what to do....When school personnel feel helpless and are unable to overcome their feeling of vulnerability, taking action to make themselves less vulnerable can improve both real and perceived safety” (Watson, 1995, p. 58). Sroka, President of Health Education Consultants and adjunct professor at Case Western Reserve University School of Medicine, (2013) has worked on school violence issues worldwide for more than 30 years and his perspective aligns with Watson’s earlier findings. However, Sroka (2013) encourages an even more progressive preparation process:

Be prepared, not scared. Schools are not powerless. Awareness, education, and advocacy can help break down the attitude that it cannot happen here. Schools and districts need to have a school-community emergency plan of action in place for students, staff, and parents. It should be both practiced and proactive.

Practice drills are crucial. Denial allows violence to grow unseen. Preparation allows violence to be dealt with as soon as it is seen. (para. 3)

Therefore preparing schools with active shooter response training becomes crucial. The National Association of Elementary School Principals (NAESP) advocates for school leadership to confront this issue with thoughtful planning that includes staff training for active shooter events (Padgett, 2006). In light of this, many schools have reported training students and staff for active shooter situations. The U.S. Department of Education reports that in 2013-2014, “70 percent of schools...reported drilling students on a written plan for school shootings...compared to 51.9% of schools that reported

having such shooter drills on a similar federal survey administered in 2009-10” (Blad, 2015, para. 2).

The DHS endorsed specific shooter response training programs through a project funded by the Regional Catastrophic Planning Initiative (Canfield, 2013; DOE et al., 2013). In 2008, the DHS produced a booklet that advises organizations on the logistics of preparing for these dangerous intruders:

Active shooter situations are unpredictable and evolve quickly. Typically, the immediate deployment of law enforcement is required to stop the shooting and mitigate harm to victims. Because active shooter situations are often over within 10 to 15 minutes, before law enforcement arrives on the scene, individuals must be prepared both mentally and physically to deal with an active shooter situation.

(p. 2)

Plans involve protocol and procedures to provide staff and students with training for dangerous intruder situations. In June of 2013, The DOE, Department of Health and Human Services, DHS, Department of Justice (DOJ), Federal Bureau of Investigation (FBI), and the Federal Emergency Management Agency (FEMA) collaborated to recommend “Run, Hide, Fight” for responding to an active shooter situation in the *Guide for Developing High-Quality School Emergency Operations Plans*. The agencies claim, “there are three basic options: run, hide, or fight. You can run away from the shooter, seek a secure place where you can hide and/or deny the shooter access, or incapacitate the shooter to survive and protect others from harm” (DOE et al., 2013, p. 63-64).

Although some school districts have implemented the “Run, Hide, Fight” philosophy, educational stakeholders are reluctant to change from the traditional

lockdown response. This reluctance is due to the application of the “Fight” concept with children in schools; therefore, these alternative shooter response strategies are controversial (Canfield, 2013; Lavarello, 2012; Trump, 2013). Trump is the president of National School Safety and Security Services, a consulting firm located in Cleveland, Ohio. Trump and his team have opposed the teachings of “Run, Hide, Fight” and similar programs that involve students and staff confronting active shooters (Trump, 2013).

One shooter response plan known as ALICE has been embraced by school districts across the nation. ALICE is an acronym for Alert, Lockdown, Inform, Counter, and Evacuate (ALICE Training Institute, 2014). The five components of ALICE provide staff with options to increase the chance of survival. The purpose of the Alert component is to “inform as many people as possible within the danger zone that a potentially life-threatening situation exist. This can be facilitated via many different methods” (ALICE Training Institute, 2014, para. 2). Lockdown is a component of ALICE that includes barricading the location to prevent an intruder breach:

The ALICE training program explains scenarios where lockdown is the preferable option and dispels myths about traditional lockdown procedures. Relying on lockdown alone will significantly endanger occupants in a violent intruder situation. Traditional lockdown creates readily identifiable targets and makes a shooter’s mission easier....ALICE trainers instruct on practical techniques for how to better barricade a room. (ALICE Training Institute, 2014, para. 3)

Inform is a “continuation of Alert and uses any means necessary to pass on real-time information. Video surveillance, 911 calls, and PA announcements are just a few of the

channels that may be used by school employees, safety officers, and other personnel” (ALICE Training Institute, 2014, para. 4). Counter is a component of ALICE:

Counter focuses on actions that create noise, movement, distance and distraction with the intent of reducing the shooter’s ability to shoot accurately. Creating a dynamic environment decreases the shooter’s chance of hitting a target and can provide the precious seconds needed in order to evacuate. ALICE does not endorse civilians fighting an active shooter unless confronted directly in a life-and-death situation. Counter is a last-ditch and worst-case scenario option.

(ALICE Training Institute, 2014, para. 5)

Evacuation is the number one goal of ALICE that involves “Evacuating to a safe area takes people out of harm’s way and hopefully prevents civilians from having to come into any contact with the shooter” (ALICE Training Institute, 2014, para. 6).

The philosophy of ALICE surrounds empowering students and staff with options based on real-time information. Given this information, students and staff make decisions to lockdown, evacuate, or use counter-measures. Research supports safety planning that includes adaptive staff training to produce more resilient organizations that can improvise and respond more effectively to crises (Somers, 2009; DOE et al., 2013). ALICE has been endorsed by The DHS, DOE, Department of Health and Human Services, DOJ, FBI, and FEMA (FBI, 2000; DOE et al., 2013; DHS, 2008).

Specifically designed for the school environment, the “Counter” in the ALICE plan provides for age-appropriate responses as a last resort when the intruder breaches student locations. Although school districts have successfully implemented the ALICE plan, it remains a controversial topic. Some school districts are openly opposed to the

ALICE model out of concerns surrounding the “Counter” concepts of the ALICE plan. Again, these misconceptions incorrectly link the ALICE protocol to negative perceptions of “Run, Hide, Fight,” where individuals envision children “fighting” the shooter (Canfield, 2013; Lavarello, 2012; Trump, 2013). Lavarello (2012) stated, “The controversy is over the “COUNTER” portion of the training that has trainers teaching young unarmed students to attack an armed gunman” (para.1). ALICE has never advocated “fighting” an active shooter. Although ALICE teaches counter concepts like swarming to adults, it utilizes age-appropriate responses. The ALICE Training Institute (2014) recommends that no counter aspect should be used with children grades 4 and lower. Grades 5th-8th are taught “partial counter using only noise, movement, and distraction” and only grades nine and up are taught “full Counter with swarm technique – no fighting” (ALICE Training Institute, 2014, para. 3).

Statement of the Problem

School safety is a major, growing concern in education. Preventing school violence has received increased attention over the past decade due to the increase in shooting incidents (Blad, 2015; Canfield, 2012; Klein, 2013; Ripley, 2013; Severson, 2013; Thomas, 2013; Wetterneck et al., 2004). National, state, and community attention has prompted schools across the country to be prepared for the possibility of an active shooter event (DHS, 2008; DOE et al., 2013; FBI, 2000; NRC, 2003). Several perspectives regarding how to view and handle school violence have emerged from educational research. Some groups have argued for legislation banning assault weapons; others have advocated for restricting purchase and possession of firearms (Ripley, 2013; Severson, 2013). In addition, educational communities have taken measures to improve

the structural integrity of facilities to reinforce safety by establishing more obstacles for an active shooter to overcome (Phaneuf, 2009; Thomas, 2013).

School districts have implemented the ALICE plan to provide staff and students with training for dangerous intruder situations as an alternative to the traditional “lockdown” response. The ALICE active shooter response plan provides staff and students with options such as barricading, evacuating, or counter measures that potentially increase the chances of survival. Endorsed by The DOE and DHS, active shooter response planning has been the focus of systemic efforts to prepare schools for these incidents (DOE et al., 2013, DHS, 2008). Active shooter response plans like ALICE are controversial because of the counter aspect (Canfield, 2013; Ergenbright & Hubbard, 2012; Lavarello, 2009; Trump, 2013). The issue of school safety is always a topic of concern in the political landscape of education, and stakeholder perceptions play a crucial role in successfully establishing a safe environment (Booren & Handy, 2009; Chambers, 2009; Foster, 2002; Underhill, 2012). District A implemented the ALICE plan in 2014 and desired to understand stakeholder perceptions of the plan. The district wanted perceptive data that reveals stakeholder concerns in order to address areas of the training and implementation that may need improvement.

Purpose of the Study

The purpose of this study was to explore the perceptions of staff and parents related to the implementation of the ALICE plan. The first purpose was to determine whether staff and parents perceived (or believed) that schools that had implemented the ALICE plan were prepared to deal with an active shooter event. The second purpose was to determine whether staff perceptions of school preparedness for an active shooter event

using the ALICE plan were affected by school level assignment (elementary, middle school, and high school). The third purpose was to determine whether parent perceptions of school preparedness for an active shooter event using the ALICE plan were affected by student school level (elementary, middle school, and high school). The fourth purpose was to determine whether staff and parent perceptions of school preparedness for an active shooter were affected by gender. The fifth purpose was to determine whether staff and parents perceived schools would be able to implement each aspect of the ALICE plan (Alert, Lockdown, Inform, Counter, and Evacuate). The sixth purpose was to determine whether staff and parents perceived that schools were safer because of the ALICE training and implementation.

Significance of the Study

Because active shooter protocols presented a new approach, new research is needed. Research on school safety had focused on general violence and bullying prevention strategies within the school culture (Booren & Handy, 2009; Foster, 2002; Klein, 2012; Mitchell & Brendtro, 2013; Wilson-Simmons et al., 2006). Additionally, there have been other studies conducted regarding perceptions of crisis management planning (Chambers, 2009; Hamidizadeh, Hosseini, & Anoosheh, 2011; Somers, 2009). There is some research surrounding shooting events and post-traumatic perceptions (Fallahi, Austad, Fallon, & Leishman, 2009; Fein, 2001). Fallahi et al. (2009) conducted research following the 2007 shootings at Virginia Polytechnic Institute in Blacksburg, Virginia. This post-event phenomenological study required students to share “their perceptions of the shooting, subsequent media exposure, and school violence in general” (Booren & Handy, 2009, p. 9). The researchers observed gender differences in “fearing

for personal safety, perceptions of increased parental concern, the role of violent media, and the need for gun control" (Booren & Handy, 2009, p. 247). More specifically, Fallahi et al. (2009) "found that students agreed with faculty and staff that mental illness and a lack of friendship were likely causal factors in the shootings" (p. 124). These studies also revealed a gap in crisis response training for students and staff. Booren and Handy (2009) suggest that students had limited knowledge of crisis plans and teachers and administrators were not adequately prepared. Researchers indicated that students and faculty needed more effective active shooter response training (Fallahi et al., 2009).

Research surrounding active shooters in the school setting is limited. Some case studies have examined post-traumatic perceptions and violence prevention programs; however, there are few studies that examined the impact of active shooter response training on stakeholder perceptions of safety preparedness (Ergenbright & Hubbard, 2012; Fallahi et al., 2009; Underhill, 2012). In fact, Ergenbright and Hubbard (2012) referred to the lack of information as a "methodological void identified in the literature review" (p. 16). Dixon (2014) noted, "Information from school staff has not been a focus on school violence thus far, leaving a gap in the literature. Excluding school staff from the discussion on the topic of school violence has left a hole in the research" (p. 6). More specifically, Lee (2013) found that there is also a void in research regarding school shootings from the educator's perspective. "Scholars from the field of education have not shown active studies regarding school shootings in spite of the fact that teachers and students are most affected by the school shootings" (Lee, 2013 p. 89).

The problem is that there has not been enough research conducted in the area of school shootings. Although there are a lot of news articles about them, there is a

lack of scholarly work that attempts to analyze the school shootings in the United States, especially from the perspective of the educator. (p. 89)

Shooter response protocol research could prove to be an invaluable element in the future of shooter response planning in the educational setting.

The results of this study may be helpful to administrators and district level personnel to evaluate and improve safety training procedures. Study results that show significant positive or negative stakeholder perceptions of ALICE may provide helpful feedback in efforts to continue to utilize, modify, add to the plan, or seek alternatives. In addition, the study could determine the perceptions of parents or staff regarding ALICE. The district might use the data to alter or improve its communication and training efforts for the future. The data could be used to formulate immediate action plans and long-range strategic plans in relation to ALICE and overall school safety planning. Because District A is the first large district in Kansas to implement a comprehensive systemic rollout of the ALICE plan, results may also be helpful to other districts and administrators in the area.

Delimitations

According to Lunenburg and Irby (2008), “delimitations are self-imposed boundaries set by the researcher on the purpose and scope of the study” (p. 134). This research study had the following delimitations:

1. Only K-12 District A parents and staff were invited to complete the survey.
2. This research was delimited to a period of data collection from staff members that occurred from September 4, 2014 to September 19, 2014.

3. This research was delimited to a period of data collection from parents that occurred from February 6, 2015 to March 30, 2015.
4. This research study was delimited to the use of an online survey instrument for data collection.

Assumptions

Assumptions are premises that are accepted as true in a research study.

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

1. Staff members were properly trained in implementing the ALICE plan.
2. Parents received effective communication regarding the implementation of the ALICE plan.
3. Staff and parents who participated in the research study understood the items on the survey.
4. Staff and parents who participated in the survey responded accurately and honestly.
5. Dependent variables (student school level for parents, staff assignment school level, gender) are independent of one another.
6. Data collected at the district level were complete and accurate.
7. The interpretation of the survey results accurately reflected perceptions of the staff and parents who participated.

Research Questions

Johnson and Christensen (2008) defined a research question as “a statement of the specific question(s) to which the researcher seeks an answer” (p. 78). The following eighteen research questions guided this study:

- RQ1. To what extent do parents perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter?
- RQ2. To what extent are parent perceptions of school preparedness for an active shooter event using the ALICE plan affected by student school level (elementary, middle school, and high school)?
- RQ3. To what extent are parent perceptions of school preparedness for an active shooter event using the ALICE plan affected by parent gender?
- RQ4. To what extent do staff members perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter?
- RQ5. To what extent are staff member perceptions of school preparedness for an active shooter event using the ALICE plan affected by school level assignment (elementary, middle school, and high school)?
- RQ6. To what extent are staff member perceptions of school preparedness for an active shooter event using the ALICE plan affected by staff member gender?
- RQ7. To what extent do parents perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation?

- RQ8. To what extent do parents perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation?
- RQ9. To what extent do parents perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation?
- RQ10. To what extent do parents perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation?
- RQ11. To what extent do parents perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation?
- RQ12. To what extent do staff members perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation?
- RQ13. To what extent do staff members perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation?
- RQ14. To what extent do staff members perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation?

RQ15. To what extent do staff members perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation?

RQ16. To what extent do staff members perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation?

RQ17. To what extent do parents perceive that schools are safer as a result of the ALICE training and implementation?

RQ18. To what extent do staff members perceive that schools are safer as a result of the ALICE training and implementation?

Definition of Terms

Key terms are words that can have different meanings and that appear throughout the research study. According to Roberts (2010), “This section of the dissertation provides the definition for the terms used that do not have a commonly known meaning or that have the possibility of being misunderstood” (p. 139). The following terms were used throughout this research study.

Active shooter. An active shooter is defined by the DHS (2008) as "an individual actively engaged in killing or attempting to kill people in a confined and populated area; in most cases, active shooters use firearm[s] and there is no pattern or method to their selection of victims” (p. 2). For this study the phrases active shooter, critical intruder incident, and crisis/intruder situation are used interchangeably by the researcher.

Elementary. The elementary organization of District A consists of six years of schooling, including kindergarten. The elementary schools included grades kindergarten, 1, 2, 3, 4, and 5 (District A, 2014).

High School. The high school organization in District A consists of four years of school. The high school included grades 9, 10, 11, and 12 (District A, 2014).

Middle School. The middle school organization of District A consists of three years of school. The middle schools included grades 6, 7, and 8 (District A, 2014).

Perception. Perception is defined by Gerrig (2012) as, “The processes that organize information in the sensory image and interpret it as having been produced by properties of objects or events in the external, three-dimensional world” (p. 521).

Overview of the Methodology

A non-experimental survey design, which is defined by Creswell (2014) as “a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population,” (p. 13) was chosen for this quantitative study. The population for the study included specified stakeholders in School District A: (1) all certified staff members working in District A K-12 buildings, (2) all classified staff members working in District A K-12 buildings, and (3) all parents of K-12 students.

The data was collected through a perceptive survey that examined stakeholder attitudes of the ALICE plan. This study utilized a quantitative Likert-type scale survey to solicit perceptions of staff and parents regarding the ALICE protocol. The survey was developed, distributed, collected, and calculated by the researcher with consultation and approval of the ALICE Training Institute and the administration in District A. The survey was distributed during the 2014-2015 school year to staff and parents using

multiple electronic resources including the internet URL link and electronic mail. The data was completed online using SurveyMonkey. Survey data from SurveyMonkey was downloaded and imported into IBM[®] SPSS[®] Statistics Faculty Pack 22 for Windows for analysis. Statistical tests used for this study included one-sample *t* tests tested against null values, two-sample *t* tests to analyze differences between two variables, and one-factor analysis of variance (ANOVA) to analyze differences in multiple variables.

Organization of the Study

This study is organized into five chapters. The first chapter includes the background of the study, statement of the problem, purpose of the study, significance of the study, delimitations, assumptions, definition of terms, an overview of the methodology, and an organization of the study. Chapter two is the review of the literature, which includes a brief overview of the evolution of school safety, the history of American school shootings, government agency safety recommendations, and a review of the literature related to safety perception research. Chapter three provides a discussion of methodological information including the research design, population and sample to be studied, sampling procedures, instrumentation (including measurement and validity and reliability), data collection methods, hypothesis testing and data analysis, and limitations of the research study. Chapter four includes a summary of the research findings and analysis of the data. Chapter five contains a discussion of the findings, implications for action, recommendations for future research, and conclusion of the research study.

Chapter Two

Review of the Literature

Following the December 14, 2012 shooting incident at Sandy Hook Elementary School, 96 school shooting events were recorded in 2013-2014 (Siddiqui, 2014). Nearly 100 shootings in this two-year span highlighted a zenith of school shooting incidents that have dramatically increased over the past fifteen years. This has fostered a sense of urgency for school districts to address the probability of an active shooter event (Blad, 2015; Canfield, 2013; Haskell, 2012; Klein, 2012; Ripley, 2013; Severson, 2013; Siddiqui, 2014; Thomas, 2013; Wetterneck et al., 2004). The ALICE plan provides alternative strategies for school districts to prepare for the possibility of an active shooter event.

The purpose for this study was to explore the perceptions of K-12 staff and parents regarding the implementation of the ALICE shooter response training. This chapter is divided into four main sections and presents a review of the literature regarding school shootings and a review of relevant perceptive research pertaining to active shooter response. Section one is a brief overview of the evolution of school safety, section two reviews the history of American school shootings, section three is a summary of government agency safety recommendations, and section four includes a review of the literature related to safety perception research.

Evolution of School Safety

Although school shootings have brought school safety to the forefront of discussion, school safety is not a new concern. School safety has evolved to address an increased need to provide a safe learning environment. “Fifty years ago schools had no

metal detectors, security guards, and few, if any, threats of violence” (Rippetoe, 2009, p. 17). According to Heath, Ryan, Dean, and Bingham (2007) the efforts to ensure safety began nearly 150 years ago with the threat of fires in schools. Heath et al. (2007) noted the beginning of school crisis plans as a result of school-based disasters that were “fire-related” (p. 208). With the danger of these disasters, there came a need to establish a safety protocols.

Crises in school settings threaten the comfort, stability, and secure environment familiar to students. Some crises, such as school shootings or natural disasters, potentially involve hundreds, even thousands of students, leaving them vulnerable to threat, loss, and traumatic stimulus. Furthermore, if a school crisis is not quickly contained or properly managed, chaos ensues, making it difficult for the limited number of adults to manage and bring the situation under control. (Heath et al., 2007, p. 207)

Fire drills are certainly not a new practice, but student behaviors and external threats have led to more comprehensive crisis-planning efforts. With the evolution of dangers, safety practices also needed to evolve. “School safety has always been a concern for parents.... Violence has been in our schools since the beginning of the public school system in the United States” (Massey-Jones, 2013, p. 13). For years, teachers and administrators maintained safe schools through discipline protocols and effective supervision practices. Administrators had to address several school safety concerns:

Teachers were to be taught prevention skills, alternatives to gangs were to be provided, school designs were improved, visitors were monitored more carefully, bus drivers were given training to manage student behavior, and school personnel

were given crisis management and violence intervention training. (Massey-Jones, 2013, p. 14)

The evolution of dangers has guided administrators to enhance safety and violence prevention efforts in schools. School shootings have been a driving force behind revising crisis management plans. “Although there was information that indicated that schools needed to develop safety protocols, many school safety plans were written as a reaction to the shootings” (Massey-Jones, 2013, p. 16-17).

Although administrators still implement these measures, the placement of school resource officers in schools is another example of safety evolution. Some schools added school resource officers as early as the 1950s. The initial purpose of the school resource officer program “was to improve the relationship between local police and youth. The officers acted not only as law enforcers but also as teachers and counselors who built relationships with students” (Rippetoe, 2009, p. 29). In the 1990s, law enforcement officers in schools began to take on a much more important role. With the increased threat of internal and external violence in schools, the school resource officers became an invaluable tool to aid in violence prevention. “In 1991, the National Association of SROs or NASRO was created” (Rippetoe, 2009, p. 29). School resource officers still serve as teachers and counselors, but their primary focus is now on law enforcement, especially at the high school level. “SROs work with all grade levels, but more are assigned to high schools than elementary and middle schools” (Rippetoe, 2009, p. 30).

In examining the evolution of school safety in response to active shooter situations, it is relevant to explore the origins of traditional lockdown. The term “lockdown” was first used in prisons to confine inmates to their cells following a riot or

other disturbance to prevent them from escaping. Lockdown is defined as “the confinement of prisoners to their cells for all or most of the day as a temporary security measure” (personal communication, Shawn Slezak, ALICE Trainer, ALICE Training Institute, February 10, 2014). Schools and other public facilities also use lockdown to protect individuals inside from an external danger. School lockdowns actually began in the Hyde Park area of South Los Angeles, California. Schools in this area found themselves victims of notorious drive-by shootings between rival gangs. During the 1980s, gang members would travel across town to perform a drive-by attack on rival gang members in the schoolyard. In response to these attacks, schools would regularly go into lockdown to protect students from the external threat (personal communication, Shawn Slezak, ALICE Trainer, ALICE Training Institute, February 10, 2014).

In 1990, legislative efforts were made to protect students in schools. Congress passed the Gun-Free School Zones Act in 1990, which went into effect on January 27, 1991. Congress passed this as part of the 1990 Crime Control Act (section 1702). This legislation became a matter of contention that was challenged in the United States Supreme Court. The Supreme Court determined that the original act of 1990 “exceeded Congress' commerce clause power because it did not adequately tie guns found in school zones to interstate commerce” (Gun Owners of America, 1996, para. 6). The revised Gun-Free School Zones Act of 1995 offered a simplified legislation that officially made it illegal to possess “a firearm within a distance of 1,000 feet from school grounds” (Gun Owners of America, 1996, para. 3). In connection with the Gun-Free School Zone Act, Lee (2013) noted that school systems started implementing the Zero-Tolerance Law that stipulates that students should be expelled from school for weapons possession. “By the

year 1997, the zero-tolerance for any type of weapon was implemented by more than 90 percent of U.S. public schools” (Lee, 2013, p. 113). Mowen (2014) found that the rapid increase in security measures, such as the Gun-Free School Zone Act, metal detectors, security resource officers, and surveillance cameras is not the result of increased school violence, but a reaction to increased school shootings in the 1990s.

Although the general public often expected problem behavior in urban schools and schools located in neighborhoods with high crime rates, the 1990s saw a number of highly publicized school shootings that occurred in unexpected venues of predominantly white, middle-class suburbia. (Mowen, 2014, p. 2)

The evolution of school shootings has forced educational systems to evolve as well.

Since the ratification of the Gun-Free School Zones Act, several additional perspectives regarding how to view and handle active shooters have emerged from the research (DHS, 2008; Mitchell & Brendtro, 2013; Watson, 1995). Some advocates argue for legislation that would ban assault weapons such as military style rocket launchers, semiautomatic rifles, ammunition-feeding devices, pistols, and shotguns (Mitchell & Brendtro, 2013; Ripley, 2013; Siddiqui, 2014). Others plead for new laws that would restrict the sale and/or purchase of firearms (Mitchell & Brendtro, 2013; Ripley, 2013; Siddiqui, 2014). Some claim that arming school personnel will serve as a defense and/or deterrent to threats. The National Conference of State Legislatures reported that “33 states considered new legislation aimed at arming teachers and administrators....only five passed laws that expanded the ability for public educators to arm themselves at school” (Severson, 2013, para. 5). In July of 2013, Kansas passed a law that “allows school districts to select employees with concealed-carry permits to bring guns to school. But a

spokeswoman for the Kansas State Department of Education said she was not aware of any districts that were pursuing it” (Severson, 2013. para. 18). Legal Counsel for the School District A, claimed that regardless of the potential deterrence to violence, most school districts will never move forward with arming teachers because, “insurance will drop coverage if schools allow staff to carry firearms” (personal communication, January 27, 2014). Dixon (2014) found “teachers possibly being asked to conceal and carry guns at school” led to apprehension from teachers (p. 148). Utah passed legislation that allows teachers and staff who are licensed to carry concealed weapons to possess firearms in public schools after completing a safety training course. However, this dynamic creates an entirely new safety risk. On September 12, 2014, in Taylorsville, Utah, an “elementary school teacher who was carrying a concealed firearm at school accidentally shot herself in the leg when the weapon discharged in a faculty bathroom” (Price, 2014, para. 1).

The United States Secret Service and the DOE joined forces to study school shootings in an attempt to develop methods to prevent active shooting events and even predict future perpetrators. Despite some evidence of violentization, broad patterns of attackers make it impossible to profile students or predict future school shootings (Ergenbright & Hubbard, 2012; Fein et al., 2002; Wetterneck et al., 2004). Ergenbright and Hubbard (2012) found that none of the profiling and threat assessment methods “offered by the Secret Service and the Department of Education represent a plausible Active Shooter prevention strategy” (p. 25). Mitchell and Brendtro (2013) concurred, recommending more efforts directed at “risk prevention” instead of “risk prediction” (p. 9). Risk prevention efforts should focus on anti-bullying programs and positive climate

initiatives can foster a safe environment that can serve to reduce school violence (Booren & Handy, 2009; Foster, 2002; Mitchell & Brendtro, 2013; Wilson-Simmons et al., 2006). However, anti-bullying efforts and positive climate programs have not served to reduce the number of active shooter incidents (Klein, 2012). Moreover, Sandy Hook and other incidents involving adult shooters prove that student profiling and risk prevention efforts cannot prevent an armed intruder situation (Canfield, 2013; Ripley, 2013; Severson, 2013; Thomas, 2013).

Government officials have strongly encouraged school systems to improve facility safety and state and local governments have provided financial resources to assist districts in doing so. Their recommendations include creating more barriers for active shooters to circumvent. Connecticut preceded many states in mandating safety improvement to school facilities and infrastructures by passing Connecticut State Senate Bill 1160. The bill provided state funding to improve structural integrity in schools including pinch points, bulletproof glass, panic buttons, safe rooms, and security cameras. The legislation resulted in over 600 applications from public schools that totaled \$21 million (Thomas, 2013). Schools across the country have utilized capital outlay funds and bond projects to improve structural integrity (Ergenbright & Hubbard, 2012; Phaneuf, 2009; Thomas, 2013). In a report released by the National Center for Educational Statistics, school safety planning and practices have increased since Sandy Hook. Statistics from 2013-14 reveal 93% of schools controlled access by locking or monitoring doors, and 43% employed security personnel in the building (Gray & Lewis, 2015). “In 2013-14, 75 percent of schools reported having at least one security camera, compared to 61percent in 2009-10” (Blad, 2015).

Structural integrity improvements are also controversial. Although these improvements may enhance safety and create more barriers, Phaneuf (2009) claims that these measures can also serve to increase student fear. “Our schools must not resemble fortresses. We cannot barricade against all possible harm; trying to do so is counterproductive to maintaining a healthy learning environment and is an ineffective use of resources” (Phaneuf, 2009, p. 1). More specifically, the use of metal detectors, security guards, and surveillance cameras negatively affected the feeling of safety and student bonding (Phaneuf, 2009). Ergenbright and Hubbard (2012) also found that security improvements were counterproductive. They claim that these structural improvements and school resource officers may improve school security, but will not necessarily improve school safety. Ergenbright and Hubbard (2012) claim that staff training is the most valuable defense against an active shooter and “argue for a victim-initiated system coupled with standardized and automated responses as the most effective means of reducing the Rate of Kill in Active Shooter scenarios” (p. 17). As a result, many schools have enhanced their approach.

In 2013-14, 70 percent of schools surveyed by the U.S. Department of Education reported drilling students on a written plan for school shootings...compared to 51.9% of schools that reported having such shooter drills on a similar federal survey administered in 2009-10. (Blad, 2015, para. 2)

Statistical data provided by structural improvements may support improvements in school security, but history has shown that students and staff must still prepare for an armed intruder incident (Canfield, 2013; Ripley, 2013).

History of American School Shootings

The issue of school shootings seems to be an American problem. No other country in the world has a higher incident rate or death toll than the United States. David Hemenway, professor of health policy at Harvard School of Public Health, summarized his research on gun violence in an interview with Koch (2012):

Here are the statistics for 5-to 14-year olds. A child in the United States compared to a child in Finland or France or New Zealand is not 20 percent more likely to be killed in a gun homicide, or 50 percent more likely, or twice as likely, or five times as likely. It's 13 times higher. (para. 2)

In fact, 90% of all youth killed in school shootings are in the United States (Koch, 2012).

Although school shootings have been an issue of increased urgency, school-related attacks are not a new phenomenon. In the past 35 years, several high-profile incidents of school shootings have intensified the issue and changed the way organizations prepare for active shooter situations. One of the first high-profile school shootings occurred at Cleveland Elementary School in San Diego, California in 1979. Wielding a .22 caliber rifle, sixteen-year-old Brenda Spencer opened fire from across the street from the school. “Principal Burton Wragg and custodian Mike Suchar were killed. Eight students and a police officer were wounded” (Deutsch, 2001, para. 5).

The number of active shooting events in American schools has increased dramatically since 1979. Several researchers have compiled statistics on school-associated shootings since the Cleveland Elementary School shootings in 1979 (Everytown for Gun Safety, 2014; Klein, 2012; Wetterneck et al., 2004). As noted in Figure 2, the number of school shooting incidents has fluctuated; however, it increased

from three to 36 from 1979 through 2013. In 2013, 36 school shootings occurred, while 60 were reported in 2014. “Since the December 2012 shooting in Newtown, CT, there have been at least 96 school shootings in America — an average of nearly one a week” (Everytown for Gun Safety, 2014, para. 1).

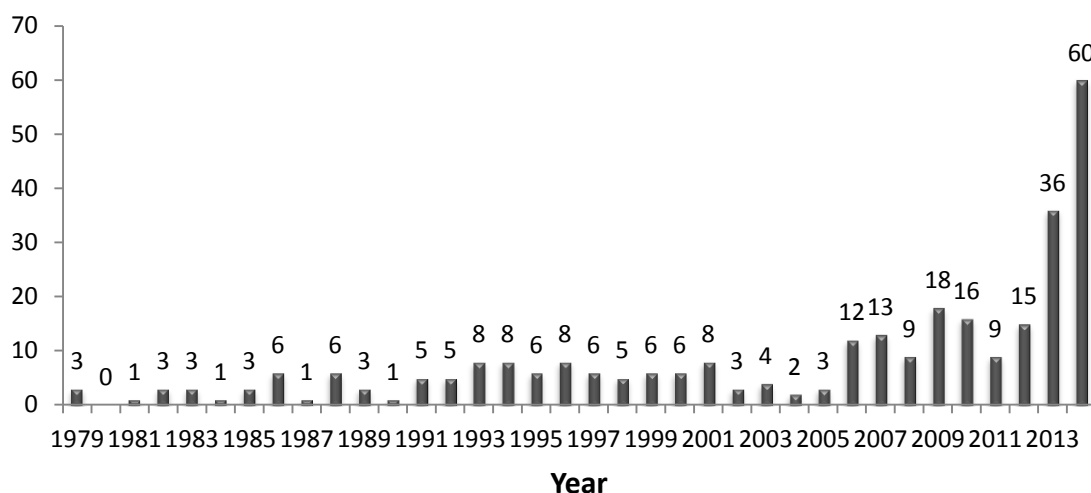


Figure 2: American School Shooting Incidents by Year, 1979-2014 the bar graph shows the relationship of shooting incidents by year. The incident count is represented on the vertical y-axis, while the years are listed on the x-axis spanning the time from 1979 through 2014. Compiled and adapted from J. Klein, 2012. *The bully society: School shootings and the crisis of bullying in America's schools*. New York, NY: New York University Press and E. Blad, 2014. Everytown for Gun Safety. (2014, December 18). *School shootings in America since Sandy Hook*. Retrieved from <http://everytown.org/article/schoolshootings/>

Figure 3 uses the same data on school shootings between 1979 and 2014; however, it illustrates the number of school shootings by decade instead of year-by-year. This synthesizes the data to illustrate the considerable increase in school shootings by decade: 27 school shootings from 1979 through 1988; 55 from 1989 through 1998; 66

from 1999 through 2008; and 154 school shootings in just six years from 2009 through 2014. The number of school shooting incidents has increased each decade from 1979 through 2014. If the trend continues, the projection would total over 256 shootings in the decade spanning between 2009 and 2018.

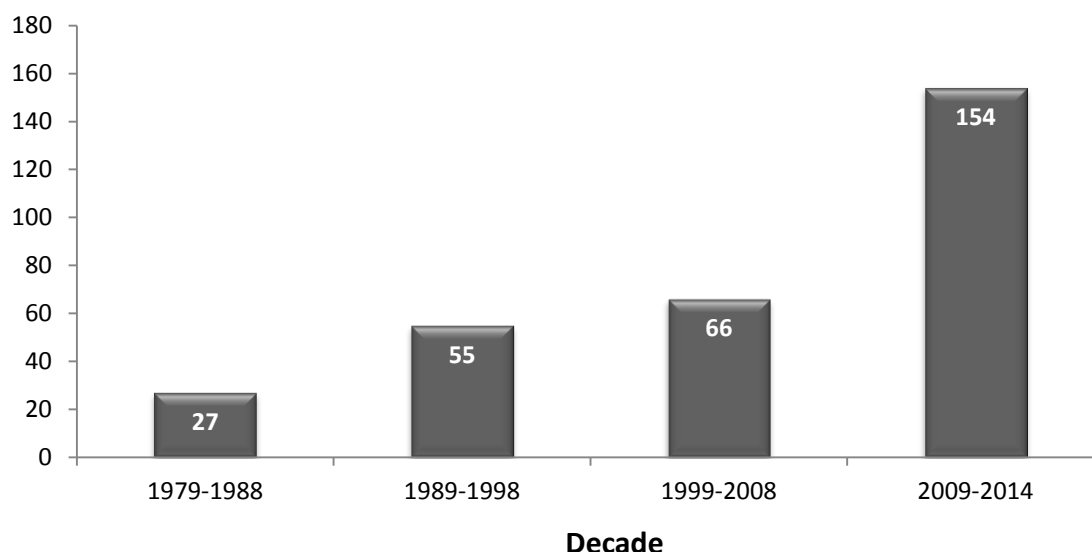


Figure 3: American School Shooting Incidents by Decade, 1979-2014 the bar graph represents the relationship of shooting incidents for each decade over 35 years. The incident count is represented by the bars on the vertical y-axis, while the decades are listed on the x-axis spanning the time from 1979 through 2014. Compiled and adapted from J. Klein, 2012. *The bully society: School shootings and the crisis of bullying in America's schools*. New York, NY: New York University Press and E. Blad, 2014. Everytown for Gun Safety. (2014, December 18). *School shootings in America since Sandy Hook*. Retrieved from <http://everytown.org/article/schoolshootings/>

Clearly, school shootings have become a topic of intense interest in the United States. After the high profile shooting at Cleveland Elementary in 1979, there was a gradual increase in school shooting incidents through the 1980s including the only

recorded incident in the state of Kansas. In 1985, a Goddard Junior High School student brought a rifle and a pistol with him to school. “When confronted by the principal, he began firing and killed the principal and wounded two teachers and a classmate” (Wallace, 2009, p. 7). During the attack, the active shooter made multiple unsuccessful attempts to gain access to the school cafeteria that housed more than 200 students. The shooter’s attempts to breach the cafeteria doors were thwarted by a handful of teachers who were physically holding the doors closed from the inside (Wallace, 2009).

School shootings continued to increase in frequency through the 1980s and 1990s. In fact, there were 73 school shooting incidents between the Kansas’ shooting and the 1999 incident at Columbine High School in Littleton, Colorado. On April 20, 1999, two students, Eric Harris and Dylan Klebold initiated an assault on the school killing twelve peers and one adult. During the attack, the Columbine librarian called 9-1-1. As she relayed information on the phone, she urged students to hide under desks in the library, which would be consistent with the lockdown protocol. Four minutes and ten seconds elapsed before Harris and Klebold breached the library doors. When the shooters entered the library, students were still attempting to conceal themselves under desks. Harris and Klebold stalked them down one-by-one, killing ten and injuring two more (FBI, 1999; Klein, 2012). Columbine students hid in the library for over four minutes. Before Harris and Klebold arrived, they could have easily escaped the building through the exit at the northwest corner of the library. The evidence from the Columbine library led school officials and law enforcement to examine whether traditional lockdown was an effective strategy in minimizing casualties.

Not only is the Columbine shooting recorded as the second most deadly shooting in K-12 schools, it also had a lasting effect on the law enforcement community (Blad, 2014; Klein, 2012). The Columbine shooting began at 11:19 a.m., first responders arrived quickly at 11:22 a.m.; however, with the fear of a supposed hostage situation, SWAT teams did not enter the facility until 1:09 p.m. The shootings in the library occurred between 11:29-11:36 a.m., and Harris and Klebold committed suicide at 12:08 p.m. (FBI, 1999). Dino (2009) found the “attack effectively showed law enforcement professionals that they were not adequately prepared to respond to this type of situation and to gain control quickly” (p. 11). The Columbine incident forever changed the way that law enforcement planned for, trained for, and reacted to a school shooting incident. Since Columbine, “police tactics have been revised and adapted to allow first responders to react more appropriately” (Dino, 2009, p. 12). Although this did lead the educational community to seek more preventative measures that surround promoting positive school climate, it did not change how schools prepare for an active shooter situation (Dino, 2009).

The event at Columbine served as a catalyst for reducing the frequency of school shooting events in the years which followed (Blad, 2014; Klein, 2012). There were 25 incidents of school shootings between 2000 and 2005 compared to 39 events between 1994 and 1999 (see Figure 2). However, in 2007, another landmark event provided a unique perspective on active shooter situations. “On April 16, 2007, Seung Hui Cho committed the deadliest mass shooting in American history as he murdered 32 and injured 17 students and faculty in two related incidents on the Virginia Polytechnic Institute and State University (Virginia Tech)” (Ergenbright & Hubbard, 2012, p. 41).

The specific logistics of this incident served as a reference for school response and active shooter training. After killing two students at Ambler Johnston Residence Hall, Seung-Hui proceeded to Norris Lecture Hall, which was the site of the mass killing. The events at Norris Hall provided valuable insight into shooter mitigation in the varying victim responses (see Figure 4). Seung-Hui began killing victims in room 206 (10 killed, 2 wounded), then moved to 207 (5 killed, 6 wounded), then 211 (12 killed, 6 wounded), then 205 (0 killed, 0 wounded), then back to 207, back to 211, and then to room 204 (2 killed, 3 wounded) (Ergenbright & Hubbard, 2012). The varied kill rate for each room of Norris Hall is the result of different strategies used by students and staff. Rooms 206 and 211 where Seung-Hui killed 22 and injured eight others went into traditional lockdown. After Cho entered and killed five in room 207, students barricaded the door with their bodies denying him reentry and thus eliminating further casualties:

Students in room 205 barricaded the door with their bodies and feet. Despite Cho's efforts to force his way into the room, he was unsuccessful and his haphazard shots fired through the door into the classroom did not result in any injuries. (Ergenbright & Hubbard, 2012, p. 51)

Finally, Seung-Hui arrived at room 204:

Professor Liviu Librescu braced his body against the door and told students to exit through the window. Ten of the 16 students in the class were able to escape by leaping the 19 feet from the second floor class to the ground. Professor Librescu was fatally shot through the door, and once in the classroom, Cho proceeded to kill one student and injured three others. (Ergenbright & Hubbard, 2012, p. 52)

Room 210 No Class	<i>TRADITIONAL LOCKDOWN</i> Room 206 14 Present 10 Killed 2 wounded	<i>BARRICADED & EVACUATED</i> Room 204 19 Present 2 Killed 3 Wounded	Room 200 No Class
Hallway – 1 Killed			
Offices	<i>TRADITIONAL LOCKDOWN</i> Room 211 19 Present 12 Killed 6 Wounded	<i>BARRICADED After 1st Time</i> Room 207 13 Present 5 Killed 6 Wounded	<i>BARRICADED</i> Room 205 12 Present 0 Killed 0 Wounded

Figure 4. Shooting Virginia Tech illustrates the different victim responses on the second floor of Norris Hall. Compiled, adapted, and created from Ergenbright, C. E., & Hubbard, S. K. (2012). Defeating the active shooter: Applying facility upgrades in order to mitigate the effects of active shooters in high occupancy facilities (Unpublished master's thesis). Naval Postgraduate School, Monterey, CA. Retrieved from http://calhoun.nps.edu/public/bitstream/handle/10945/7337/12Jun_Ergenbright_Hubbard.pdf?sequence=1

The events of Norris Hall illustrate the difference in victim response and the consequences to an active shooter situation. Passive responses by victims in rooms 206 and 211 provide evidence of failed strategies associated with traditional lockdown. In contrast, active responses in rooms 205 and 204 provided strong evidence in support of

alternative victim responses. Room 207 represented a unique scenario representing both passive and active responses. In this room, Cho breeched the locked door killing five and injuring six more. He then left room 207 to attack the adjacent rooms. After the first breach, staff and students barricaded the door and prevented Cho's attempts to reenter the room. However, a "lack of standardized response and immediate control measures" resulted in an overall high death toll in Norris Hall (Ergenbright and Hubbard, 2012, p. 58). Ergenbright and Hubbard (2012) claimed:

The Virginia Tech shooting demonstrated that victims and potential victims are the only immediate responders to an Active Shooter and lends great support to our third hypothesis which maintains that a Victim Initiated Mitigation system that is able to sufficiently synchronize immediate control measures with a prescribed set of automated responses would have been capable of reducing the Rate of Kill in this instance. (p. 58)

After the Virginia Tech massacre, the number of school shootings increased. As illustrated in Figure 2, there were 80 incidents of school shootings between 2007 and 2012, which is higher than the number of shootings in the previous 14 years (Blad, 2014; Klein, 2012). In 2012, another significant event served as a landmark in the history of school shootings; Sandy Hook Elementary became the site of a tragedy that shocked the country (Ripley, 2013). At 9:30 a.m. on December 14, 2012, a staff member routinely locked the front doors at the entrance of Sandy Hook Elementary School in Newtown, Connecticut (CDCJ, 2013). Minutes later, Adam Lanza shot his way through the plate-glass window next to those same doors. Armed with a Bushmaster rifle and two

handguns, Lanza entered the building and began firing. The 20-year-old shooter fired multiple rounds killing twenty children, six adults, and wounding two other adults.

The report of the state's attorney for the judicial district of Danbury on the shootings at Sandy Hook Elementary School outlines the significant timeline of the event. The timeline indicated that at 9:35:39 a.m. the first 911 call was placed and the school went into traditional lockdown protocol. At 9:40:03 a.m., Lanza killed himself, but the damage was done. Newtown first responders entered the building at 9:44:47 a.m. where they discovered the aftermath of the massacre. Authorities were helpless to stop the shooter's rampage (CDCJ, 2013). This serves to support Ergenbright and Hubbard's (2012) findings that "victims are the only immediate responders to an active shooter situation" (p. 67). One victim from Sandy Hook did take action. Amidst the shooting as Lanza paused to reload, one 6-year-old boy shouted for his classmates to run. "The boy, Jesse Lewis, had just seen his teacher shot and urged the others to flee while the gunman put a new clip into his semi-automatic rifle" (Associated Press, 2013, para. 2). Lanza reloaded, shot, and killed Jesse, but "11 students survived, including some who ran past Lanza when he stopped to reload" (Associated Press, 2013, para. 8). The neighboring classroom stayed in traditional lockdown where "only one child survived and both teachers were killed" (Associated Press, 2013, para. 8). This provides further evidence that active victim response can serve to minimize casualties (CDCJ, 2013). Sandy Hook Elementary School became the site of the deadliest K-12 school shooting in history (Klein, 2012; Ripley, 2013).

After the December 2012 events at Sandy Hook Elementary School, school shooting events have seen an even more dramatic increase. "Nearly 100 school shootings

have occurred in the two years since the massacre at Sandy Hook Elementary School” (Siddiqui, 2014, para. 1). There is no doubt that Sandy Hook and other school shooting events have brought a sense of urgency surrounding school safety that has led many school officials to rethink traditional lockdown as an effective strategy (Canfield, 2013; Ripley, 2013; Severson, 2013; Thomas, 2013).

Government Agency Recommendations

With the increased frequency of school shootings, government agencies have written recommendations regarding procedures to address the issue. The United States Secret Service, DOE, Department of Health and Human Services, DHS, DOJ, FBI, and FEMA have each conducted extensive research and presented reports to address the active shooter in schools. The active shooter is defined by the DHS (2008) as "an individual actively engaged in killing or attempting to kill people in a confined and populated area; in most cases, active shooters use firearm[s] and there is no pattern or method to their selection of victims” (p. 2).

Following the shooting at Columbine High School in Littleton, Colorado in 1999, researchers began to investigate case studies of eighteen previous school shootings. In July of 1999, the FBI (2000) interviewed teachers and administrators from all eighteen schools at a symposium held at Leesburg, Virginia. The purpose was to study the specific cases of school shootings to develop a better understanding of the school, the shooter, shooter’s background, the incident itself, and other social dynamics that may have influenced the crime. The FBI used a four-pronged assessment model that included personality of the student, family dynamics, school dynamics, and social dynamics. Analysis included definitions of threat assessment and level of risk. Results indicated,

“Clues that appear to help interpret past events should not be taken as predictors of similar events in the future” (FBI, 2000, p. 3). The FBI concluded, “There is no clear research that has identified traits and characteristics that can reliably distinguish school shooters from other students” (FBI, 2000, p. 3). The FBI recommended the need for further field-testing to evaluate and develop threat assessments. Additionally, they recommended that administrators and school staff should receive training in the fundamentals of threat assessment and adolescent violence.

The United States Secret Service and the Department of Education joined forces to study school shootings and offered an approach to threat assessment that combines information-gathering strategies through an investigative process to attempt to predict individuals with a potential for violence.

These questions seek to ascertain motivation, communication, unusual interests, attack-related behaviors, mental condition, level of cognitive sophistication, recent losses, consistency, potential for harm, and contributing environmental problems....In the Safe Schools Initiative, the Secret Service suggested two principle areas in which to focus threat assessment efforts: developing detection and evaluation capabilities for information related to targeted school violence, and incorporating threat assessment findings when formulating strategies to prevent Active Shooters. However, this method still possesses little potential for reducing the Rate of Kill for Active Shooter incidents. (Ergenbright & Hubbard, 2012, pp. 25-26)

Ergenbright and Hubbard (2012) support the Threat Assessment Approach offered by the Secret Service as a “good initial step toward preempting Active Shooters in the U.S.

However, this approach also has significant obstacles and limitations” (p. 26). This process requires the threat to be identified and reported to the proper authorities. This method of prevention relies on every student, teacher, parent, and staff member to be a responsible, “credible sensor for detecting credible threats” (Ergenbright & Hubbard, 2012, p. 26).

The International Associations of Chiefs of Police (IACP) (2009) collaborated with the Bureau of Justice Assistance (BJA), the DOJ, the Bureau of Justice Statistics, and the Office of Juvenile Justices and Delinquency Prevention to release recommendations for preventing and responding to active shooters in schools. The IACP (2009) encouraged schools to train staff to utilize multiple options that go beyond traditional lockdown. They also recommended training that includes evacuation and active resistance. They clearly stated that lockdown is no longer enough to reduce the rate of kill in an active shooter situation.

Active resistance is fighting back with any objects of opportunity, such as chairs, desk, and books. Active resistance is a last resort and should only be used if potential victims are trapped in a room with an active shooter, there are already victims, and all other personal survival recommendations are no longer an option.

There have been cases where active resistance has been successfully used, such as a shooting in Springfield, Oregon. (p. 24)

In addition, IACP (2009) recommended that individuals in dangers should make their own decisions. “Teachers should make decision about lockdown or evacuation on their own only in life-threatening situations, as specified in the school crisis management plan....In the absence of adult direction, decide where it is safest to be and remain there”

(pp. 24-25). Because the ALICE plan offers this flexibility, the IACP (2009) endorsed training by the ALICE Training Institute (ALICE Training Institute, 2014).

The DHS (2008) warned that law enforcement was unable to respond adequately to an active shooter situation. Because most active shooter situations are over in less than fifteen minutes, the DHS (2008) advocated for programs that direct individuals to prepare themselves to directly deal with active shooters in schools. Under the direction of Vice President Joe Biden and support from DHS, FBI, DOJ, Department of Health and Human Services, DOJ, and FEMA, the DOE released recommendations for schools to prepare for an active shooter situation on June 18, 2013. In the document, the DOE claims that lockdown is not enough. “As the situation develops, it is possible that students and staff will need to use more than one option” (DOE, 2013, p. 64). In addition, the DOE (2013) declared that those in harm’s way should have options to protect themselves.

There are three basic options: run, hide, or fight. You can run away from the shooter, seek a secure place where you can hide and/or deny the shooter access, or incapacitate the shooter to survive and protect others from harm....If running is not a safe option, hide in as safe a place as possible. Students and staff should be trained to hide in a location where the walls might be thicker and have fewer windows. In addition, hide along the wall closest to the exit but out of the view from the hallway (allowing for an ambush of the shooter and for possible escape if the shooter enters the room). (pp. 63-64)

Contrary to traditional school lockdowns, the DOE (2013) also declared that teachers and students should be given the freedom to make their own decisions. “While they should follow the plan and any instructions given during an incident, often they will have to rely

on their own judgment to decide which option will best protect lives” (pp. 63-64).

Specifically, the ALICE program has been endorsed by the DOE as an exemplar of these response options (ALICE Training Institute, 2014).

With the DOE recommendation, several educational organizations have collectively agreed that schools must have strategic options to address the active shooter. The Association of Supervision and Curriculum Development (ASCD) has supported strategies that prepare students and staff for dangerous intruder scenarios. In an ASCD school safety audit, Watson (1995) concluded that preparing staff for school violence must become a priority. “Staff members may not know what to do....When school personnel feel helpless and are unable to overcome their feeling of vulnerability, taking action to make themselves less vulnerable can improve both real and perceived safety” (Watson, 1995, p. 58). Therefore preparing schools with active shooter response training becomes crucial. The NAESP claims that many schools are able to confront the issue by shifting the culture of schools: “It requires leadership from the top, a critical mass of trained staff members, careful planning, and excellent communication” (Padgett, 2006, p. 27).

Safety Perceptions Research

There are some case studies involving shooting events and research on post-traumatic perceptions; however, there is no clear or complete information that indicates whether or how active shooter response training has any impact on stakeholder perceptions of safety preparedness (Lee, 2013; Ergenbright & Hubbard, 2012; Fallahi et al., 2009; Underhill, 2012). Although there have been no studies conducted regarding perceptions of the ALICE plan, several studies have provided relevant perspectives

regarding perceptions of crisis management plans, general school safety, and bullying. Other studies have been conducted to examine post-shooting perceptions of victims.

Fein (2001) conducted a study that examined perceptions of school leaders following a shooting event that included four different school districts where school shootings had occurred. Six themes emerged as results: (1) leaders were exposed to physiological and emotional responses; (2) leaders coped with the incident by relying on past experiences and/or support from others; (3) leaders felt a high level of responsibility/guilt; (4) leaders felt uncertain, because they did not have the benefit of a model or plan to guide their decisions; (5) leaders were changed forever; and (6) leaders felt a new sense of vulnerability in the world around them. Overall, school leader perceptions of school safety were drastically impacted after the shooting incidents. These leaders held negative perceptions regarding the overall safety of their buildings.

Celaya (2003) performed a qualitative study to explore student and parent perceptions of emergency preparedness plans at one Tucson, Arizona middle school. The researcher interviewed fourteen seventh grade students and fourteen of their parents to gather their understandings related to crisis-related issues. Areas of emphasis included fire drills, lockdown procedures, and campus evacuations. Overall, there was a difference in student and parent perceptions. Parent respondents revealed a lack of understanding in all areas of the emergency preparedness plans.

According to the participants, the school's crisis management strategies were shared more often with students than parents. Policies for preventing and responding to crisis were reviewed with students in classes during the first month of each school year. The children and adults were given written documentation of

a selection of the school's crisis management policies during their first few days of enrollment. (Celaya, 2003, p. 346)

Specifically, students responded with 100% confidence that they felt prepared for fire drills whereas only 71% of parents responded positively. Concerning lockdown procedures, 29% of students responded with positive understanding, while 14% of the parents shared that they had knowledge of lockdown procedures.

The children understood the lockdown procedures to some extent because lockdowns were practiced twice during the 2001-2002 school year, and the procedures were implemented in response to a real crisis in the fall of 2001. The parents who held some degree of knowledge related to the lockdown procedures learned about lockdowns from their children. (Celaya, 2003, p. 337)

Finally, both students and parents revealed that they had no knowledge of campus evacuation procedures. "The student and parent participants reported that campus evacuation procedures were not instructed in classes, and as a result, zero comprehension of the procedures was evident across the participant pool" (Celaya, 2003, p. 337-338). Celaya (2003) also found that there was a lack of communication in the areas of alert and inform. Concerning the crisis in the fall of 2001, the school reported five attempts to communicate the emergency information and crisis planning updates with parents. Celaya (2003) shared that only 7% of parents responded that they had received any communication in the form of the school's alert and inform systems regarding the incident. Recommendations included making safety and crisis procedures a priority. School safety protocols are just as important as rigorous reading, writing, and arithmetic

curriculum. Celaya (2003) shared that schools must be prepared for crises, and all students and parents have a right to know how their school will manage emergencies.

Another study was conducted to determine perceptions of incidents of school violence. Wilson-Simmons et al. (2006) described findings from focus groups conducted with students and staff from five middle schools in an urban school district in New Jersey. The discussions used “hypothetical vignettes that depicted a range of situations in which students witnessed or heard about actual or future violence” (Wilson-Simmons et al., 2006, p. 24). Three vignettes were shared with each group in which scenarios “varied in terms of immediacy of danger, severity of violence, ambiguity of situation, people involved, and places where the violence might occur” (Wilson-Simmons et al., 2006, p. 47). Participants were asked to assume a bystander perspective and share how they would typically respond and why. Discussions were recorded; facilitators took notes and summarized responses using a categorical template that identified bystander norms, attitudes, and behaviors. Findings were consistent with previous research, suggesting that bystanders influence violence by actively promoting it or passively accepting it. Wilson-Simmons et al. (2006) concluded that building community consensus around bystander behavior was insufficient to dissuade school violence. The results led to conclusions that indicated that schools must find ways to promote more effective violence prevention strategies.

A study in Southern California schools explored school safety preparedness concerning terrorists’ attacks including active shooter situations. Carroll (2008) surveyed all adult members of nine high schools from districts in Southern California to explore their perceptions of safety preparedness. The sample included all support staff, teachers,

administrators, and “parents who participate in the parent, teacher, student organization (PTSO)” (Carroll, 2008, p. 53). The school systems had implemented a systemic effort including all stakeholders surrounding updated protocols to address school safety. The results produced multiple findings including improved stakeholder perceptions of overall school safety. Staff, students, and parents perceived a higher level of safety at school. Specifically, “parents believe that their children were safe at school” (Carroll, 2008, p. 80). Conversely, the data revealed that stakeholder perceptions did not improve in the area of alert and inform. The survey responses showed a disparity between parents and staff in these areas. “Responding parents gave a higher rating to ‘The school has been a part of the community emergency planning for terrorist attacks’” (Carroll, 2008, p. 91). However, teachers were more cynical. Educators perceived a lack of confidence in school preparedness and shared that their school and community did not have “adequate emergency plans in the event of a terrorist attack....Most educators live near their school and with a lack of communication at the school level they were more cynical as a group” (Carroll, 2008, p. 91). Recommendations included continuing to update current safety plans to encompass improved communication efforts with stakeholders.

Folks (2008) conducted a study in an urban school district in Indiana to examine whether requiring principals to “complete a safety checklist once each semester had any effect on school safety preparedness at the building level” (p. 1). This study was conducted in an urban school district in Indiana. Six school principals took part in this study including two elementary principals, two middle school principals, and two high school principals. Qualitative methods for this study included conducting interviews with the principals, taking field notes, and tape recording interviews. The results of the study

revealed improved perceptions from principals, staff, and students in awareness, credibility, uniformity, and accountability. Folks (2008) concluded there was a need for principals to conduct regular self-assessments to measure their school's preparedness for an emergency. "Documentation through measurement is a critical component. Principals must realize that when it comes to school-safety preparedness, what gets measured gets improved" (Folks, 2008, p. 145-146). Recommendations were to improve the checklist and conduct drills that include a multitude of realistic scenarios. Overall, staff members perceived that their schools were safer with the newly implemented safety protocols.

Booren and Handy (2009) conducted survey research to examine the perceptions of overall school safety, specifically regarding safety protocols and the crisis management plans utilized in high schools. They utilized the Indicators of Preferences for School Safety (IPSS), which is a 27-item survey. IPSS was administered to 182 high school students in the northwestern United States. The analysis revealed four main strategies that influence student perceptions of school safety: rule enforcement (30.8%), education (8.8%), control and surveillance (6.1%), and counseling (5.0%). Specifically, grade level differences were found in students' perceptions of rule enforcement.

The overall model was significant and differences were found only in the Rule Enforcement scale for 12th graders reporting these strategies as more important than for 9th and 11th graders. It is possible that older students are more familiar with their school and thus have a better awareness of the importance of Rule Enforcement safety strategies. (Booren & Handy, 2009, p. 247)

In addition, Booren and Handy (2009) found perceptions of school safety significantly improve when the safety protocols are effectively communicated to all stakeholders including students, parents, teachers, administrators, and classified staff.

Chambers (2009) conducted a study with K-12 counselors serving 254 schools in St. Louis, Missouri. The purpose of this study was to assess school counselors' perceptions of preparedness to respond to acts of school violence and to evaluate their concern with personal safety. The researcher utilized the web-based *National School Violence Survey* to determine the perceptions of counselors' abilities to respond adequately when facing acts of violence. Results of the survey varied. "The majority of school counselors ($n = 94$, 91.3%) surveyed in the present study indicate never being a victim of physical assault or verbal threats within the past year at school" (Chambers, 2009, p. 123). However, counselor perceptions of safety differed. Overall results of the study indicated that counselors did not feel their school was safe. Specifically, school counselors felt a need for enhancing services and programs for students, further training to prepare for school violence, and shared concerns for their personal safety. Chambers (2009) concluded that promoting school violence awareness and preparedness would provide counselors with more confidence to respond in situations involving school violence.

A post-shooting study was conducted after the 2007 events at Virginia Tech. Fallahi et al. (2009) performed the perceptive study on the campus at Blacksburg, Virginia, which was the site of the deadliest school shooting in American history that subsequently "brought violence on college campuses to the forefront of the nation's attention" (p. 120). This study was significant in that Fallahi et al. (2009) observed

different perceptions between male and female students. Female student perceptions revealed higher levels of fear and a lower perception of overall campus safety than did their male peers.

Gender differences were observed in the domains of fearing for personal safety, perceptions of increased parental concern, the role of violent media, and the need for gun control. Although males felt less safe than females in their dormitory room, females thought it more likely that another shooting would occur, and females were more concerned that someone would attack them both on and off campus. (p. 133)

In addition, females rated violent media, video games, bullying, and lack of gun control laws more highly as possible explanations for school shootings than males did.

Recommendations included encouraging faculty to report instances of problematic student behavior, and building positive relationships with students who may need social or emotional support. Fallahi et al. (2009) also indicated that faculty needed improved school safety training as well as training on mental illness issues.

Educational institutions are not the only entities that are planning for these types of situations. Hamidizadeh et al. (2011) performed a study that involved a close examination of the crisis management planning for the Southwest Power Generation Management Company in Iran. The analysis of the findings revealed the company was weak in their planning for crisis management. In addition, the results of the study indicated that experimental exercises could reveal whether plans are useful. It was determined that crisis management effectiveness improves if personnel are (1) aware of the plan, (2) they know their role in the contingent scenario, and (3) they train

appropriately for crisis situations. Recommendations include education and training of all personnel so they know exactly what he/she must do in emergent violent situations. Overall, staff members' perceptions of safety improved with adequate crisis management planning.

Alba (2011) conducted a study to explore perceptions of elementary, middle school, and high school principals regarding crisis preparedness. A sample of 60 principals from Rhode Island public schools were administered a survey to identify their "perceptions of their school's safety and preparedness planning in the event of a variety of emergency situations" including active shooter response plans (Alba, 2011, p. 160). Alba (2011) found several differences in perceptions of safety preparedness among these administrators. Notably, principals shared "teachers were resistant to new policies or changes to existing practices" (Alba, 2011, p. 145). Some principals even shared that the lack of cooperation elevated to a level of insubordination from teachers who refused to follow updated safety protocols. In the areas of communication during a school shooting, administrators perceived a high level of ambiguity in the alert and inform phase. Parents did not perceive an improvement in overall safety regarding the updated crisis preparedness plans. Specifically, there was a lack of coordinated response plan to communicate with parents in the case of an emergency. Administrators shared "concerns over the mitigation of the media and parents during a crisis event....In the development of coordinated response plans" (Alba, 2011, p. 152). Secondly, Alba found differences in perceptions of elementary, middle school, and high school principals. The results of the study showed that principals' perceptions of overall safety preparedness varied at each level: when 5 = *Extremely well prepared*, elementary principal perceptions were the most

positive ($M = 4.58$), followed by perceptions of middle school ($M = 3.70$) and high school principals ($M = 3.59$) (Alba, 2011, p. 162). Alba (2011) noted that middle high school principals spent more hours of professional development for safety training, whereas elementary principals did not share the same zeal. From a training perspective, the district partnered with the police department to offer training that was not required. Alba (2011) noted that the district received “sparse attendance from our elementary principals.... the more training people have, the more of this whole thing comes second nature” (p. 149-150). Additional differences in staff perceptions of emergency preparedness varied at school level.

1. Elementary schools had a greater extent of implementing external security measures with respect to the identification of visitors than high schools.
2. High schools had a greater extent of implementing internal security measures than elementary schools.
3. High school principals had a greater extent of implementing various crisis drills in collaboration with first responders than those in both elementary and middle school. (Alba, 2011, p. 176)

Alba's (2011) recommendations included increasing required professional development for all staff; developing district-level crisis management teams that collaborate with parents, media, and first responders; and conducting regular emergency drills at each building level.

Another study was conducted to examine how bystanders would, or even should, respond in violent incidents. Using identified focus groups of female students at Pima Medical Institute in Colorado Springs, Colorado, Underhill (2012) used a preliminary

questionnaire, individual interviews, and group discussions for the qualitative study and analysis. For this study, the researcher addressed both internal and external socioeconomic factors that influence student bystander action. The results indicated a need for effective anti-bullying and violence prevention programs in schools. Results of the questionnaire and interview study showed that students perceived a lack of overall safety on campus. Furthermore, the respondent data revealed that the majority of students did not feel confident in executing any level of counter measures when they witness peer violence (Underhill, 2012). The researcher advocated a proactive framework for the development of a bystander action model referred to as ARISE (awareness, responsibility, information, safety, and execution). The researcher suggested the ARISE model be used as an action strategy for postsecondary institutions to inform new policies and procedures in efforts to minimize violent events. However, the ARISE model serves merely as a framework without a specified action model for the “Execution” piece. Underhill (2012) admits the ARISE model is “promising as a violent shooting incident tool... but the conceptualization and definition of the approach is in its infancy and needs further development” (p. 141).

Lee (2013) performed a literature-based analysis from an educator’s perspective that examined trends and patterns in school shootings between the 1970s and 2013. The researcher summarized findings about “trends and patterns such as characteristics of perpetrators (e.g., characterization, identification, age, gender, and interest in violence)” (Lee, 2013, p. 92). Lee (2013) examined the attackers and identified causes of the school shootings. “There are two main causes for school shootings: bullying (87%) and side

effects from psychiatric drugs (12%)” (Lee, 2013, p. 96). The researcher found that bullying seemed to trigger the majority of school shooting attacks.

The humiliation of school bullying results in either suicidal thoughts or revenge.

Their plan for restoration many times results in violence as shown by the school shooters. Most school shooters (78%) displayed a history of suicide attempts or suicidal thoughts....Revenge was the motive for 61% of the school shooters.

More than one-half of the attackers (54%) had this combination of suicidal

thoughts and revenge as reasons for their school shooting. (Lee, 2013, p. 96-97)

Upon examination of school shooters, the researcher also identified psychiatric drug use as another main cause behind the attacks. “School shooters who had been prescribed medications (10%) displayed medication non-compliance (i.e., failure to take psychiatric medication as prescribed)” (Lee, 2013, p. 97).

The researcher suggested multiple recommendations including (1) responsive intervention of behaviors, (2) developing threat assessments, (3) emotional and spiritual development, (4) gun control laws, (5) parental control on media with gun violence, and (6) teacher self-defense workshops. Lee’s (2013) most significant findings revealed that most (62%) of the school shooting incidents were resolved by students, school staff, or the shooters themselves. “Only 8% of the incidents were resolved by the law enforcement personnel discharging weapons at the attacker” (Lee, 2013, p. 107).

It is important to pay attention to the fact that it was not through law enforcement intervention but through the intervention of educators that most of the school shooting incidents were stopped. This finding indicates the significance of arming teachers with the knowledge of self-defense. In addition, most school

shootings incidents are brief. Average response time by police to a mass shooting is 3 minutes. In most instances, that exceeds the time the shooter is engaged in killing. (Lee, 2013, p. 115)

Lee's (2013) study ultimately serves to increase educator awareness and ultimately "help them understand the roles they can play in order to keep the schools safe from school shootings" (p. 88).

The most timely and relevant study was conducted by Dixon (2014) who performed a qualitative study that explored teachers' perceptions of safety and preparedness regarding school shootings. The study involved probing interviews with a random sample of ten teachers in one Midwestern city. Dixon recorded the semi-structured interviews during which participants shared their perceptions regarding school shootings. "Teachers in the study stated that while they felt like their schools had taken steps to be prepared to address school violence that there was still room for improvement. Teachers felt like their schools were not completely prepared" (Dixon, 2014, p. 143). Many teachers revealed that their school had plans that involve lockdown drills, but they never trained staff to prepare for an actual shooter event. "Teachers in the study mentioned that their school did not offer them training to address the types of school violence" (Dixon, 2014, p. 145). Dixon (2014) revealed teachers' apprehension in facing a potential active shooter event. Participants stated they "never had any training....The school is not as prepared as it could be....We haven't explored all of our options" (p. 144-145). Many teachers shared their concerns about the viability of their lockdown procedures, sharing that they did not feel the traditional lockdown protocols provided solutions for locking doors, hiding students, and keeping students quiet during an active

shooter situation. The results of the study revealed that teachers from elementary grades felt a greater need to prepare younger students compared to teachers of higher grade levels. “One study participant even said that his students may be able to help him devise and implement safety measures in an intruder situation, while this may not be possible with younger grades” (Dixon, 2014, pp. 161-162). The study specifically explored teachers’ perceptions of safety following the shooting at Sandy Hook. Teachers shared that the Sandy Hook incident had a powerful emotional impact on their perceptions of school safety. However, in lieu of the Sandy Hook incident, teachers shared their conviction to protect their students.

All of the teachers in the study also mentioned that they were willing to protect their students if an attack were to occur, even if that meant putting themselves in harm’s way, and all study participants also indicated that even with the risk of an attack like Sandy Hook occurring at their school, they still wanted to teach....They thought about the teachers who lost their lives to protect their students and felt that those teachers were heroic, and that they would want to do the same for their students. (Dixon, 2014, p. 151, 166)

Although the qualitative study included a small sample of ten teachers, Dixon’s study revealed valuable information regarding teachers’ perceptions of safety when faced with the possibility of an active shooter event.

Summary

Literature regarding school shootings and safety perceptions research pertaining to active shooter response was reviewed in this chapter. The review included a brief overview of the evolution of school safety, the history of American school shootings,

government agency safety recommendations, and literature related to safety perception research. The research design, population and sample, hypotheses, limitations, data collection procedures, and statistical analyses related to this research study are presented in chapter three.

Chapter Three

Methods

The purpose of this study was to examine parent and staff perceptions of the implementation of the ALICE program. This chapter contains detailed information about the methodology used in conducting this study. This chapter includes a description of the research design; the population and sample studied; sampling procedures; instrumentation, including measurement, reliability, and validity; data collection procedures; data analysis and hypothesis testing; and limitations.

Research Design

A quantitative descriptive survey research design was used to determine the extent of the staff and parent perceptions as they relate to the implementation of the ALICE plan as preparation for an active shooter event. The dependent variables included in the study were staff members' perceptions and parents' perceptions of the ALICE plan. The independent variables included in the study were the gender of the staff members and parent respondents (male or female), staff member respondent assignments (elementary, middle school, or high school), and student school level for parent respondents (elementary, middle school, or high school).

Population and Sample

The population for this study was composed of all staff and parents in District A, a large suburban district in the Kansas City metropolitan area. The sample included all K-12 certified and classified staff members in school district A with an active district electronic mail account during the 2014-15 school year. The sample also included all K-12 parents in District A with an active electronic mail account in the district's Synergy

Information System. Only staff and parents who received and responded to the survey were included in this study.

Sampling Procedures

Johnson and Christensen (2008) defined purposive sampling as occurring when the researcher specifies the characteristics of the population of interest and locates individuals with those characteristics. Nonrandom purposive sampling was used to select participants for this study. The researcher specified the criteria that were used to locate survey participants. The first established criterion for participation in the research study was district employment level; all certified and classified employees working in schools in District A were invited to participate. All classified staff members included paraprofessionals, clerical staff, technicians, custodial staff, tutors, and teachers' assistants who work in K-12 facilities with students. All certified staff members included teachers, counselors, social workers, school psychologists, occupational therapists, physical therapists, nurses, and administrators who work in K-12 facilities with students. The second criterion for certified and classified employees was that they had an active district electronic mail address. The first established criterion for parent participation in the study was being a parent of, or having guardianship of a K-12 student enrolled in District A. The second parent criterion was that they had an active electronic mail address on file as the parent contact in the Synergy Information system.

Instrumentation

The survey instrument used for this study was The Perceptions of ALICE Survey. Items in the survey were created by the researcher in collaboration with several individuals associated with the ALICE implementation. The quantitative survey

provided numerical data to determine the perceptions of staff and parents surrounding the ALICE implementation in District A.

The survey instrument was developed by the researcher in collaboration with several individuals associated with the ALICE implementation in the K-12 school setting including the Assistant Superintendent of General Administration in District A and directors from the ALICE Training Institute. In constructing the instrument, electronic mail correspondence was first established with the Program Manager from the ALICE Training Institute on December 10, 2013 who shared ALICE program response feedback materials. On December 17, 2013, these materials were then personally shared with the Assistant Superintendent and the Director of Safety and Security for District A. During this collaboration, the team decided to gather input from other districts that implemented the ALICE program and solicited post-training feedback. The researcher conducted two personal communications over the phone with district administrators. As a result of conversations with an Ohio assistant principal and a Wisconsin pupil services administrator, the first draft of the survey was developed. This first draft was shared and revised by collaborating with leadership at the ALICE Training Institute. Specifically, personal conversations took place with the national ALICE trainer on February 7, 2014 and electronic mail correspondence with the ALICE Training Institute Chief Executive Officer on February 10, 2014. The second draft of the survey was then shared with the Assistant Superintendent from District A, which led to on-going conversations on February 12 and 20. The third draft was shared and revised with a Baker University School of Education advisor and the Baker University School of Education Research Analyst on February 27. The fourth draft was shared with Assistant Superintendent from

District A on March 4 that led to further revisions. The final version of the survey was produced and approved by the Assistant Superintendent from District A on April 3, 2014.

The Perceptions of ALICE Survey included a five-point Likert-type scale to solicit perceptions of staff and parents regarding the ALICE implementation. Participants responded on the five-point Likert-type scale: *1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree*. The survey instrument used in this study contained two sections. Section one included two items. The first item identified respondent gender (male, female). The second item identified school level. For the staff survey, this referred to school level assignment (elementary, middle school and high school) that included an option to select all that apply. The parent survey identified student school level of children for parent respondents (elementary, middle school and high school) that included an option to select all that apply. Section two consisted of nine items that addressed the extent of parent and staff perceptions regarding the ALICE implementation. A copy of the ALICE staff survey can be found in Appendix B; the ALICE parent survey can be found in Appendix C.

Item 3 addressed understanding of the ALICE program and its components: *I understand all the concepts of ALICE (Alert, Lockdown, Inform, Counter, and Evacuate).*

Item 4 addressed perceptions of the Alert aspect of the ALICE plan: *I believe that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation.* Participants responded on the five-point Likert-type scale.

Item 5 addressed perceptions of the Lockdown aspect of the ALICE plan: *I believe that staff and students would be able to implement the Lockdown aspect of the*

ALICE plan in a crisis/intruder situation. Participants responded on the five-point Likert-type scale.

Item 6 addressed perceptions of the Inform aspect of the ALICE plan: *I believe that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation.* Participants responded on the five-point Likert-type scale.

Item 7 addressed perceptions of the Counter aspect of the ALICE plan: *I believe that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation.* Participants responded on the five-point Likert-type scale.

Item 8 addressed perceptions of the Evacuate aspect of the ALICE plan: *I believe that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation.* Participants responded on the five-point Likert-type scale.

Item 9 addressed perceptions of all aspects of the ALICE plan: *I believe that staff and students would be able to implement ALL aspects of the ALICE plan in a crisis/intruder situation.* Participants responded on the five-point Likert-type scale.

Item 10 addressed perceptions of all the school's capacity to handle an intruder event: *I feel confident in our school's ability to handle a critical intruder incident.* Participants responded on the five-point Likert-type scale.

Item 11 addressed overall perceptions of safety as a result of the ALICE training: *Overall, I feel our schools are safer as a result of the ALICE training.* Participants responded on the five-point Likert-type scale.

Measurement. Survey item 1 was used to measure the demographic gender (male, female). Survey item 2 was used to measure the staff school level assignment for staff respondents, and student school level for parent respondents. Survey items 3

through 11 measured the perceptions of staff and parents on the implementation of the ALICE plan.

The dependent variable in research question 1 was parent perceptions of ALICE. Question 1 specifically measured the extent to which parents perceived that schools that had implemented the ALICE plan were prepared to deal with an active shooter event. This variable was measured using the mean response to survey items 9 and 10.

Research question 2 addressed the extent to which parent perceptions of school preparedness for an active shooter event using the ALICE plan are affected by student school level. Measurement for the dependent variable, perceptions of preparedness for an active shooter event, was described above. The independent variable, school level of the student, was measured in survey item 2.

Research question 3 addressed the extent to which parent perceptions of school preparedness for an active shooter event using the ALICE plan are affected by parent gender. Measurement for the dependent variable, perceptions of preparedness for an active shooter event, was described above. The independent variable, gender, was measured in survey item 1.

The dependent variable in research question 4 was staff member perceptions of ALICE. Question 2 specifically measured the extent to which staff members perceived that schools that had implemented the ALICE plan were prepared to deal with an active shooter event. This variable was measured using the mean response to survey items 9 and 10.

Research question 5 addressed the extent to which staff member perceptions of school preparedness for an active shooter event using the ALICE plan are affected by

staff school level assignment. Measurement for the dependent variable, perceptions of preparedness for an active shooter event, was described above. The independent variable, school level assignment, was measured in survey item 2.

Research question 6 addressed the extent to which staff member perceptions of school preparedness for an active shooter event using the ALICE plan are affected by staff member gender. Measurement for the dependent variable, perceptions of preparedness for an active shooter event, was described above. The independent variable, gender, was measured in survey item 1.

The dependent variable in research question 7 was parent perceptions of the Alert aspect of ALICE. The question specifically measured the extent to which parents perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation, was measured using survey items 3 and 4.

The dependent variable in research question 8 was parent perceptions of the Lockdown aspect of ALICE. The question specifically measured the extent to which parents perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation, was measured using survey items 3 and 5.

The dependent variable in research question 9 was parent perceptions of the Inform aspect of ALICE. The question specifically measured the extent to which parents perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation, were measured using survey items 3 and 6.

The dependent variable in research question 10 was parent perceptions of the Counter aspect of ALICE. The question specifically measured the extent to which

parents perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation, was measured using survey items 3 and 7.

The dependent variable in research question 11 was parent perceptions of the Evacuate aspect of ALICE. The question specifically measured the extent to which parents perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation, was measured using survey items 3 and 8.

The dependent variable in research question 12 was staff member perceptions of the Alert aspect of ALICE. The question specifically measured the extent to which staff members perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation, were measured using survey items 3 and 4.

The dependent variable in research question 13 was staff member perceptions of the Lockdown aspect of ALICE. The question specifically measured the extent to which staff members perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation, was measured using survey items 3 and 5.

The dependent variable in research question 14 was staff member perceptions of the Inform aspect of ALICE. The question specifically measured the extent to which staff members perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation, was measured using survey items 3 and 6.

The dependent variable in research question 15 was staff member perceptions of the Counter aspect of ALICE. The question specifically measured the extent to which

staff members perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation, was measured using survey items 3 and 7.

The dependent variable in research question 16 was staff member perceptions of the Evacuate aspect of ALICE. The question specifically measured the extent to which staff members perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation, was measured using survey items 3 and 8.

The dependent variable in research question 17 was parent perceptions of safety using the ALICE program. The question specifically measured the extent to which parents perceive that schools are safer as a result of the ALICE training and implementation was measured using survey item 11.

The dependent variable in research question 18 was staff member perceptions of safety using the ALICE program. The question specifically measured the extent to which staff members perceive that schools are safer as a result of the ALICE training and implementation was measured using survey item 11.

Validity and reliability. The research instrument was piloted with a validation committee of experts to elicit feedback for improvement and to increase the validity of the survey. A seven-member committee was selected by the researcher consisting of three experts from the ALICE Training Institute, the Assistant Superintendent from District A, the Director of Safety and Security from District A, a Baker University School of Education advisor, and the Baker University School of Education Research Analyst. The experts from the ALICE Training Institute and District A agreed that gender and

school level were potential variables in respondent perceptions. This guided the researcher to include these items in the demographic section of the survey instrument. The three ALICE Training Institute experts provided feedback to compose the questions toward an educational environment that focuses on school safety. The instructors from Baker University shared insights into reducing the questions to focus only on specific data to be tested. The administration from District A advised rewording the questions so that respondents could reply using the five-point Likert scale. Each of these changes was made to the survey.

Because this study involved an analysis of individual items, a reliability analysis was not needed. Scale reliability is evaluated to ensure that the items together are consistently measuring what they are said to measure. Sackett & Larson (as cited in Wanous & Reichers, 1996) stated that the:

Most commonly used single-item measures can be divided into two categories: (a) those measuring self-reported facts... and (b) those measuring psychological constructs, e.g., aspects of personality... measuring the former with single items is common practice. However, using a single-item measure for the latter is considered to be a “fatal error” in research. If the construct being measured is sufficiently narrow or is unambiguous to the respondent, a single item may suffice. (p. 631)

The individually analyzed items were narrow and unambiguous; therefore, a reliability analysis was not needed.

Data Collection Procedures

Prior to conducting research, the researcher obtained permission from District A by completing the District A research proposal form (see Appendix D). The completed research proposal form was electronically mailed to the Director of School Improvement and Assessment from District A. After careful examination, District A's Teaching and Learning committee approved the request to conduct the survey on July 22, 2014 (see Appendix E).

The process to obtain permission from Baker University to conduct the research study was initiated. An Institutional Review Board (IRB) request was submitted to Baker University on August 25, 2014 (see Appendix F). The Baker University IRB committee approved the research study on September 3, 2014 (see Appendix I). After obtaining approval from District A's Teaching and Learning committee and the Baker University IRB committee, District A's Director of Instructional Technology was contacted to initiate the survey distribution. District A's Director of Instructional Technology used the Synergy Information System to upload the parent email addresses into Microsoft outlook as a distribution list. The existing all-staff email distribution list was utilized to coordinate staff distribution.

Administration of the survey took place through an online survey service within SurveyMonkey, which aids in the creation, administration, and data management of surveys (SurveyMonkey, 2014). The survey instrument was typed into SurveyMonkey so that research participants could access the survey online with a provided URL web link. Four e-mail requests to participate in the research study were sent to the sample. The staff survey was opened and the initial electronic mail message was sent to staff

members on September 4, 2014 (see Appendix G). A second e-mail reminding staff about the survey was sent on September 10, 2014, and the staff survey was closed on September 19, 2014. The parent survey was distributed to all parents in District A at the building level by each building principal. The initial electronic mail message containing the parent survey was sent to parents on February 6, 2015 (see Appendix H) in both English and Spanish. Multiple reminders were sent to parents during the distribution period. Distribution of the parent survey was varied. Some principals repeated the reminder only twice, while other principals solicited their parents more frequently during the distribution window. The data collection process was ended and the survey was closed on March 30, 2015.

Data Analysis and Hypothesis Testing

Data from SurveyMonkey were downloaded and imported into IBM[®] SPSS[®] Statistics Faculty Pack 22 for Windows. The analysis focused on 18 research questions. Each research question is delineated below with the corresponding hypothesis and method of statistical analysis.

RQ1. To what extent do parents perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter?

H1. Parents perceive that schools that which had implemented the ALICE plan are prepared to deal with an active shooter.

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

RQ2. To what extent are parent perceptions of school preparedness for an active shooter event using the ALICE plan affected by student school level (elementary, middle school, and high school)?

H2. Parent perceptions of school preparedness for an active shooter event using the ALICE plan are significantly affected by student school level.

Two one-factor ANOVAs were conducted to test H2. The categorical variable used to group the dependent variable parent perceptions was student school level (elementary, middle school, and high school). A Tukey HSD post hoc was conducted as a follow-up test. The level of significance was set at .05.

RQ3. To what extent are parent perceptions of school preparedness for an active shooter event using the ALICE plan affected by parent gender?

H3. Parent perceptions of school preparedness for an active shooter event using the ALICE plan are significantly affected by parent gender.

Two two-sample *t* tests were conducted to test H3. The categorical variable used to group the dependent variable parent perceptions was parent gender. The two sample means were compared. The level of significance was set at .05.

RQ4. To what extent do staff members perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter?

H4. Staff members perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter.

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

RQ5. To what extent are staff member perceptions of school preparedness for an active shooter event using the ALICE plan affected by school level assignment (elementary, middle school, and high school)?

H5. Staff member perceptions of school preparedness for an active shooter event using the ALICE plan are significantly affected by school level assignment.

Two one-factor ANOVAs were conducted to test H5. The categorical variable used to group the dependent variable staff perceptions was staff school level (elementary, middle school, and high school). A Tukey HSD post hoc was conducted as a follow-up test. The level of significance was set at .05.

RQ6. To what extent are staff member perceptions of school preparedness for an active shooter event using the ALICE plan affected by staff member gender?

H6. Staff member perceptions of school preparedness for an active shooter event using the ALICE plan are significantly affected by staff member gender.

Two two-sample *t* tests were conducted to test H6. The categorical variable used to group the dependent variable was parent gender. The two sample means were compared. The level of significance was set at .05.

RQ7. To what extent do parents perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation?

H7. Parents perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H7. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ8. To what extent do parents perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation?

H8. Parents perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H8. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ9. To what extent do parents perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation?

H9. Parents perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H9. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ10. To what extent do parents perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation?

H10. Parents perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H10. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ11. To what extent do parents perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation?

H11. Parents perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H11. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ12. To what extent do staff members perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation?

H12. Staff members perceive that staff and students would be able to implement The Alert aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H12. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ13. To what extent do staff members perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation?

H13. Staff members perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation.

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

RQ14. To what extent do staff members perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation?

H14. Staff members perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H14. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ15. To what extent do staff members perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation?

H15. Staff members perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H15. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ16. To what extent do staff members perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation?

H16. Staff members perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation.

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

RQ17. To what extent do parents perceive that schools are safer as a result of the ALICE training and implementation?

H17. Parents perceive that schools are significantly safer as a result of the ALICE training and implementation.

A one-sample *t* test was conducted to test H17. The sample mean was tested against a null value of 3. The level of significance was set at .05.

RQ18. To what extent do staff members perceive that schools are safer as a result of the ALICE training and implementation?

H18. Staff members perceive that schools are significantly safer as a result of the ALICE training and implementation.

A one-sample *t* test was conducted to test H18. The sample mean was tested against a null value of 3. The level of significance was set at .05.

Limitations of the Study

The limitations of this study are variables that may affect the outcome of the study and are factors that cannot be controlled by the researcher. Even though the researcher cannot control the limitations, they must be declared because they “may have an effect on the interpretations of the findings or on the generalizability of the results” (Lunenburg & Irby, 2008, p. 133). Some individuals who prefer to complete surveys in person or by mail may have decided not to participate. Although the survey only includes eleven items, parents and staff may decide not to take the time to respond. This research study was limited to responses from the survey respondents who completed and submitted the survey.

Summary

Chapter three included a restatement of the purposes of the research study. Research questions were restated and hypotheses were discussed. The participants of the research study were K-12 parents and staff members from District A. The data collection and analysis procedures were discussed for each of the hypotheses described. Chapter four includes the results of the hypothesis testing.

Chapter Four

Results

The purpose of this study was six fold. The first purpose was to determine whether staff and parents perceive schools are prepared for an active shooter event using the ALICE plan. The second purpose was to determine whether staff perceptions of school preparedness for an active shooter event using the ALICE plan were affected by school level assignment (elementary, middle school, and high school). The third purpose was to determine whether parent perceptions of school preparedness for an active shooter event using the ALICE plan were affected by student school level (elementary, middle school, and high school). The fourth purpose was to determine whether staff and parent perceptions of school preparedness for an active shooter were affected by gender. The fifth purpose was to determine whether staff and parents perceived schools would be able to implement each aspect of the ALICE plan (Alert, Lockdown, Inform, Counter, and Evacuate). The sixth purpose was to determine whether staff and parents perceived that schools are safer because of the ALICE training and implementation. Chapter four contains the results of the data analysis and hypothesis testing related to parent and staff perceptions of the implementation of the ALICE program. The results of the one-sample *t* tests, two-sample *t* tests, and one-factor ANOVAs are presented.

Descriptive Statistics

There were two populations for this research study that involved two sample groups. The first group who completed the survey was 841 parents in District A. Of the 841 parents, 696 were female, and 145 were male. Of the 841 parents, 521 had children attending the elementary level, 129 had children attending the middle school level, and

191 had children attending the high school level. The second group who completed the survey was comprised of 2,235 staff members in District A. Of the 2,235 staff members, 1,881 were female, and 354 were male. Of the 2,235 staff members, 1,217 were assigned to the elementary level, 507 were assigned to the middle school level, and 511 were assigned to the high school level. The IBM® SPSS® Statistics Faculty Pack 22 for Windows statistical program was used to analyze the data for this study. The demographics of the sample and response rates that identify the gender of the respondent (male or female), parents by school level of children (elementary, middle school, or high school), and staff school level assigned (elementary, middle school, or high school) are presented in Table 1. The staff respondent return revealed that more females (1,881) responded than males (354) and more elementary (1,217) responded compared to middle school (507) and high school staff (511). Similarly, a larger portion of female parents (696) answered the survey than males (145). It was also interesting to note that more elementary parents (521) responded than did middle school (129) and high school parents (191).

Table 1

Participant Demographics

Characteristic		<i>n</i>	% of Sample
Parent Survey Sample		841	100.0
Gender	Female	696	82.8
	Male	145	17.2
School Level	Elementary	521	62.0
	Middle School	129	15.3
	High School	191	22.7
Staff Survey Sample		2,235	100.0
Gender	Female	1,881	84.2
	Male	354	15.8
School Level	Elementary	1,217	54.5
	Middle School	507	22.7
	High School	511	22.9

The descriptive statistics calculated for this study provided specific information about the sample. The following section contains the results of the hypothesis testing that involved inferential analysis to draw conclusions related to the researcher's expectations of parent and staff perceptions of the ALICE plan.

Hypothesis Testing

Data from SurveyMonkey was downloaded and imported into IBM[®] SPSS[®] Statistics Faculty Pack 22 for Windows. The analysis focused on 18 research questions. Each research question is delineated below with the corresponding hypothesis and the results of statistical analysis.

RQ1. To what extent do parents perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter?

H1. Parents perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter.

Two one-sample *t* tests were conducted to test H1, using data from survey items 9 and 10. For each, the sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample *t* test using survey item 9 indicated a statistically significant difference between the two values, $t = 28.944$, $df = 840$, $p = .000$. The sample mean ($M = 3.85$, $SD = .85$) was higher the null value (3). On average parents agreed that staff and students would be able to implement all aspects of the ALICE plan in dealing with an active shooter. The results of the one-sample *t* test using survey item 10 indicated a statistically significant difference between the two values, $t = 32.278$, $df = 840$, $p = .000$. The sample mean ($M = 3.938$, $SD = .843$) was higher the null value (3). On average parents agreed that the school has the ability to handle a critical intruder incident.

RQ2. To what extent are parent perceptions of school preparedness for an active shooter event using the ALICE plan affected by student school level (elementary, middle school, and high school)?

H2. Parent perceptions of school preparedness for an active shooter event using the ALICE plan are significantly affected by student school level.

Two one-factor ANOVAs were conducted to test H2. The categorical variable used to group the dependent variable parent perceptions was parent school level (elementary, middle school, and high school). A Fisher's Least Significant Difference (LSD) post hoc was conducted as a follow-up test. The level of significance was set at .05. The results of the analysis using survey item 9 indicated there was not a statistically significant difference between at least two of the means, $F = .986$, $df = 2, 838$, $p = .373$. See Table 2 for the means and standard deviations for this analysis. A follow up post hoc was not conducted. There was no significant difference among the elementary parent mean ($M = 3.88$), the middle school parent mean ($M = 3.83$), or the high school parent mean ($M = 3.78$). Elementary school parents, middle school parents, and high school parents similarly agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation.

Table 2

Descriptive Statistics for the Results of the Test for H2 Using Survey Item 9

Parent School Level	<i>M</i>	<i>SD</i>	<i>N</i>
Elementary	3.88	.83	521
Middle School	3.83	.83	129
High School	3.78	.91	191

The results of the analysis using survey item 10 indicated a statistically significant difference between at least two of the means, $F = 3.142$, $df = 2, 838$, $p = .044$. See Table 3 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 Fisher's LSD post hoc indicated a difference in one of the comparisons. The elementary school parent mean ($M = 3.99$) was higher than the middle school parent mean ($M = 3.82$). Elementary parents agreed more strongly than middle school parents did that the school has the ability to handle a critical intruder incident.

Table 3

Descriptive Statistics for the Results of the Test for H2 Using Survey Item 10

Parent School Level	<i>M</i>	<i>SD</i>	<i>N</i>
Elementary	3.99	.81	521
Middle School	3.82	.83	129
High School	3.86	.94	191

RQ3. To what extent are parent perceptions of school preparedness for an active shooter event using the ALICE plan affected by parent gender?

H3. Parent perceptions of school preparedness for an active shooter event using the ALICE plan are significantly affected by parent gender.

Two two-sample *t* tests were conducted to test H3. The categorical variable used to group the dependent variable was parent gender. The two sample means were compared. The level of significance was set at .05. The results of the two sample *t* test using survey item 9 indicated no statistically significant difference between the two values, $t = 1.622$, $df = 839$, $p = .105$. The sample mean for females ($M = 3.87$, $SD = .824$) was similar to the sample mean for males ($M = 3.74$, $SD = .963$). On average female and male parents agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation.

The results of the two sample t test using survey item 10 indicated no statistically significant difference between the two values, $t = 1.521$, $df = 839$, $p = .129$. The sample mean for females ($M = 3.96$, $SD = .822$) was similar for males ($M = 3.84$, $SD = .933$). On average female and male parents agreed that the school has the ability to handle a critical intruder incident.

RQ4. To what extent do staff members perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter?

H4. Staff members perceive that schools that had implemented the ALICE plan are prepared to deal with an active shooter.

Two one-sample t tests were conducted to test H4, using data from survey items 9 and 10. For each, the sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test using survey item 9 indicated a statistically significant difference between the two values, $t = 47.305$, $df = 2234$, $p = .000$. The sample mean ($M = 3.81$, $SD = .81$) was higher the null value (3). On average staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. The results of the one-sample t test using survey item 10 indicated a statistically significant difference between the two values, $t = 57.458$, $df = 2,234$, $p = .000$. The sample mean ($M = 3.96$, $SD = .79$) was higher the null value (3). On average staff agreed that the school has the ability to handle a critical intruder incident.

RQ5. To what extent are staff member perceptions of school preparedness for an active shooter event using the ALICE plan affected by school level assignment (elementary, middle school, and high school)?

H5. Staff member perceptions of school preparedness for an active shooter event using the ALICE plan are significantly affected by school level assignment.

Two one-factor ANOVAs were conducted to test H5. The categorical variable used to group the dependent variable staff perceptions was staff school level (elementary, middle school, and high school). A Fisher's Least Significant Difference (LSD) post hoc was conducted as a follow-up test. The level of significance was set at .05. The results of the analysis using survey item 9 indicated a statistically significant difference between at least two of the means, $F = 11.513$, $df = 2, 2232$, $p = .000$. 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 Fisher's LSD post hoc indicated the differences in two of the comparisons. The elementary staff mean ($M = 3.87$) was higher than the high school mean ($M = 3.67$). The middle school staff mean ($M = 3.80$) was higher than the high school mean ($M = 3.67$). Elementary staff and middle school staff agreed more strongly than high school staff that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation.

Table 4

Descriptive Statistics for the Results of the Test for H5 Using Survey Item 9

Staff School level	<i>M</i>	<i>SD</i>	<i>N</i>
Elementary	3.87	.76	1,217
Middle School	3.80	.81	507
High School	3.67	.89	511

The results of the analysis using survey item 10 indicated a statistically significant difference between at least two of the means, $F = 8.093$, $df = 2, 2232$, $p = .000$. 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 Fisher's LSD post hoc indicated differences in two of the comparisons. The elementary staff mean ($M = 4.00$) was higher than the high school mean ($M = 3.84$). The middle school staff mean ($M = 3.99$) was higher than the high school mean ($M = 3.84$). Elementary staff and middle school staff agreed more strongly than high school staff that the school has the ability to handle a critical intruder incident.

Table 5

Descriptive Statistics for the Results of the Test for H5 Using Survey Item 10

Staff School level	<i>M</i>	<i>SD</i>	<i>N</i>
Elementary	4.00	.75	1,217
Middle School	3.99	.81	507
High School	3.84	.87	511

RQ6. To what extent are staff member perceptions of school preparedness for an active shooter event using the ALICE plan affected by staff member gender?

H6. Staff member perceptions of school preparedness for an active shooter event using the ALICE plan are significantly affected by staff member gender.

Two two-sample *t* tests were conducted to test H6. The categorical variable used to group the dependent variable was staff gender. The two sample means were compared. The level of significance was set at .05. The results of the two sample *t* test using survey item 9 indicated a marginally significant difference between the two values, $t = -1.947$, $df = 2,233$, $p = .052$. The sample mean for females ($M = 3.79$, $SD = .81$) was lower than the sample mean for males ($M = 3.88$, $SD = .82$). Although the difference was

not statistically significant, female staff agreed less strongly than male staff that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation.

The results of the two sample t test using survey item 10 indicated a statistically significant difference between the two values, $t = -2.293$, $df = 2,233$, $p = .022$. The sample mean for females ($M = 3.95$, $SD = .80$) was lower than the sample mean for males ($M = 4.05$, $SD = .74$). Female staff agreed less strongly than male staff that the school has the ability to handle a critical intruder incident.

Prior to conducting the hypothesis tests for the research questions that address staff's and students' ability to implement the Alert, Lockdown, Inform, Counter, and Evacuate aspects of the ALICE plan, a one-sample t test was conducted using survey item 3 to analyze parent understanding of the concepts of ALICE. The results of the one-sample t test indicated the mean level of agreement ($M = 3.89$, $SD = 1.106$) that parents did understand all of the concepts of ALICE was significantly higher than 3, $t = 23.25$, $df = 840$, $p = .000$. Their level of understanding provides evidence that parents perceived that staff and students have the ability to implement ALICE.

RQ7. To what extent do parents perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation?

H7. Parents perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation.

A one-sample t test was conducted to test H7. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test using survey item 4 indicated a statistically significant difference between

the two values, $t = 38.155$, $df = 840$, $p = .000$. The sample mean ($M = 4.06$, $SD = .81$) was higher than the null value (3). Parents agreed that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation.

RQ8. To what extent do parents perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation?

H8. Parents perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation.

A one-sample t test was conducted to test H8. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test using survey item 5 indicated a statistically significant difference between the two values, $t = 38.947$, $df = 840$, $p = .000$. The sample mean ($M = 4.06$, $SD = .79$) was higher than the null value (3). Parents agreed that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation.

RQ9. To what extent do parents perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation?

H9. Parents perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation.

A one-sample t test was conducted to test H9. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test using survey item 6 indicated a statistically significant difference between the two values, $t = 36.875$, $df = 840$, $p = .000$. The sample mean ($M = 4.00$, $SD = .79$) was higher than the null value (3). Parents agreed that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation.

RQ10. To what extent do parents perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation?

H10. Parents perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H10. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample *t* test using survey item 7 indicated a statistically significant difference between the two values, $t = 23.839$, $df = 840$, $p = .000$. The sample mean ($M = 3.74$, $SD = .904$) was higher than the null value (3). Parents agreed that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation.

RQ11. To what extent do parents perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation?

H11. Parents perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H11. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample *t* test using survey item 8 indicated a statistically significant difference between the two values, $t = 35.902$, $df = 840$, $p = .000$. The sample mean ($M = 4.01$, $SD = .82$) was higher than the null value (3). Parents agreed that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation.

Prior to conducting the hypothesis tests for the research questions that address staff's and students' ability to implement the Alert, Lockdown, Inform, Counter, and Evacuate aspects of the ALICE plan, a one-sample *t* test was conducted using survey

item 3 to analyze staff understanding of the concepts of ALICE. The results of the one-sample t test indicated the mean level of agreement ($M = 4.32$, $SD = .67$) that staff did understand all of the concepts of ALICE was significantly higher than 3, $t = 92.417$, $df = 2, 234$, $p = .000$. Their level of understanding provides evidence that staff could accurately evaluate staff's and student's ability to implement ALICE.

RQ12. To what extent do staff members perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation?

H12. Staff members perceive that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation.

A one-sample t test was conducted to test H12. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test using survey item 4 indicated a statistically significant difference between the two values, $t = 60.593$, $df = 2, 234$, $p = .000$. The sample mean ($M = 4.03$, $SD = .80$) was higher than the null value (3). Staff agreed that staff and students would be able to implement the Alert aspect of the ALICE plan in a crisis/intruder situation.

RQ13. To what extent do staff members perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation?

H13. Staff members perceive that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation.

A one-sample t test was conducted to test H13. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample t test using survey item 5 indicated a statistically significant difference between the two values, $t = 74.482$, $df = 2, 234$, $p = .000$. The sample mean ($M = 4.18$, $SD = .748$)

was higher than the null value (3). Staff agreed that staff and students would be able to implement the Lockdown aspect of the ALICE plan in a crisis/intruder situation.

RQ14. To what extent do staff members perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation?

H14. Staff members perceive that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H14. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample *t* test using survey item 6 indicated a statistically significant difference between the two values, $t = 50.245$, $df = 2,234$, $p = .000$. The sample mean ($M = 3.89$, $SD = .836$) was higher than the null value (3). Staff agreed that staff and students would be able to implement the Inform aspect of the ALICE plan in a crisis/intruder situation.

RQ15. To what extent do staff members perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation?

H15. Staff members perceive that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H15. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample *t* test using survey item 7 indicated a statistically significant difference between the two values, $t = 39.875$, $df = 2,234$, $p = .000$. The sample mean ($M = 3.73$, $SD = .861$) was higher than the null value (3). Staff agreed that staff and students would be able to implement the Counter aspect of the ALICE plan in a crisis/intruder situation.

RQ16. To what extent do staff members perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation?

H16. Staff members perceive that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation.

A one-sample *t* test was conducted to test H16. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one-sample *t* test using survey item 8 indicated a statistically significant difference between the two values, $t = 62.740$, $df = 2,234$, $p = .000$. The sample mean ($M = 4.07$, $SD = .807$) was higher than the null value (3). Staff agreed that staff and students would be able to implement the Evacuate aspect of the ALICE plan in a crisis/intruder situation.

RQ17. To what extent do parents perceive that schools are safer as a result of the ALICE training and implementation?

H17. Parents perceive that schools are significantly safer as a result of the ALICE training and implementation.

A one-sample *t* test was conducted to test H17. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one sample *t* test indicated a statistically significant difference between the two values, $t = 38.181$, $df = 840$, $p = .000$. The sample mean ($M = 4.113$, $SD = .845$) was higher the null value (3). Parents agreed that schools are safer as a result of the ALICE training.

RQ18. To what extent do staff members perceive that schools are safer as a result of the ALICE training and implementation?

H18. Staff members perceive that schools are significantly safer as a result of the ALICE training and implementation.

A one-sample t test was conducted to test H18. The sample mean was tested against a null value of 3. The level of significance was set at .05. The results of the one sample t test indicated a statistically significant difference between the two values, $t = 80.075$, $df = 2, 234$, $p = .000$. The sample mean ($M = 4.25$, $SD = .740$) was higher the null value (3). Staff agreed that schools are safer as a result of the ALICE training.

In summary, a total of 14 one-sample t tests, four two-sample t tests, and four one-factor ANOVAs using Fisher's Least Significant Difference (LSD) were calculated to index parent and staff perceptions of the ALICE plan. Overall, the findings regarding perceptions of the ALICE plan indicated that parent and staff similarly agreed that schools are safer as a result of the ALICE training.

Summary

Chapter four contained the results of the data analysis and hypothesis testing related to parent and staff perceptions of the implementation of the ALICE program. The results of the one-sample t tests, two-sample t tests, and one-factor ANOVAs were presented. Chapter five includes a summary of the research study, major findings, connections to the literature, implications for action, recommendations for further study, and conclusions.

Chapter Five

Interpretation and Recommendations

Chapter five includes a summary of the study by restating the overview of the problem, the purpose statement and research questions, the methodology, and presents the major findings of the study. A discussion of the findings related to the literature is also included. The chapter concludes with implications for action for District A followed by recommendations for future research designed to complement or extend this study. Concluding remarks serve as the final section of this chapter.

Study Summary

The following section provides a summary of the current study. The summary contains an overview of the problem concerning the study of perceptions of District A staff and parents related to the implementation of the ALICE plan. The next section states the purpose of the study and the research questions. The summary concludes with a review of the methodology and the study's major findings. This study expanded the body of research analyzing perceptions of crisis management plans and begins to fill the current void in perceptions of active shooter response protocol research.

Overview of the problem. School safety is a major, growing concern in education. Preventing school violence has received increased attention over the past decade due to the increase in shooting incidents (Blad, 2015; Canfield, 2013; Klein, 2012; Ripley, 2013; Severson, 2013; Thomas, 2013; Wetterneck et al., 2004). National, state, and community attention has prompted schools across the country to be prepared for the possibility of an active shooter event (DHS, 2008; DOE et al., 2013; FBI, 2000; NRC, 2003). Several perspectives concerning active shooter scenarios have emerged

from educational research. School districts have implemented the ALICE plan to provide staff and students with training for dangerous intruder situations as an alternative to the traditional lockdown response. The ALICE active shooter response plan provides staff and students with options such as barricading, evacuating, or counter measures that potentially increase the chances of survival. Endorsed by the DOE and DHS, active shooter response planning has been the focus of systemic efforts to prepare schools for these incidents (DOE et al., 2013; DHS, 2008). Active shooter response plans like ALICE are controversial because of the counter aspect (Canfield, 2013; Ergenbright & Hubbard, 2012; Lavarello, 2012; Trump, 2013). The issue of school safety is a topic of concern in the political landscape of education, and stakeholder perceptions play a crucial role in successfully establishing a safe environment (Booren & Handy, 2009; Chambers, 2009; Foster, 2002; Underhill, 2012). District A implemented the ALICE plan in 2014 and desired to understand stakeholder perceptions of the plan. The district wanted perceptive data that revealed stakeholder concerns in order to address areas of the training and implementation that may need improvement.

Purpose statement and research questions. The purpose of this study was to explore the perceptions of staff and parents related to the implementation of the ALICE plan. Eighteen research questions were posed. The first purpose was to determine whether staff and parents perceived that schools that had implemented the ALICE plan were prepared to deal with an active shooter event. The second purpose was to determine whether staff perceptions of school preparedness for an active shooter event using the ALICE plan were affected by school level assignment (elementary, middle school, and high school). The third purpose was to determine whether parent perceptions of school

preparedness for an active shooter event using the ALICE plan were affected by student school level (elementary, middle school, and high school). The fourth purpose was to determine whether staff and parent perceptions of school preparedness for an active shooter were affected by gender. The fifth purpose was to determine whether staff and parents perceived schools would be able to implement each aspect of the ALICE plan (Alert, Lockdown, Inform, Counter, and Evacuate). The sixth purpose was to determine whether staff and parents perceived that schools are safer because of the ALICE training and implementation. The perceptions data were then studied to determine what improvements District A may incorporate into the ALICE training to improve perceptions and ultimately improve school safety protocols in a crisis/intruder situation.

Review of the methodology. The sample for the current study included stakeholders who were certified and classified staff members working in District A K-12 buildings and parents of K-12 students. The data was collected through a perceptive survey that examined stakeholder attitudes of the ALICE plan. This study utilized a quantitative Likert-type scale survey to solicit perceptions of staff and parents regarding the ALICE protocol. The survey was developed, distributed, collected, and analyzed by the researcher with consultation and approval of the ALICE Training Institute and the administration in District A. The survey was distributed to staff and parents during the 2014-2015 school year using multiple electronic resources including the internet URL link and electronic mail. The data was completed online using SurveyMonkey. Survey data from SurveyMonkey was downloaded and imported into IBM® SPSS® Statistics Faculty Pack 22 for Windows for analysis. Statistical tests used for this research study included one-sample *t* tests tested against null values, two-sample *t* tests to analyze

differences between two variables, and a one-factor ANOVA to analyze differences in multiple variables.

Major findings. Analysis of the survey responses revealed that both parents and staff agreed that schools are safer as a result of the ALICE training. Parents and staff in District A revealed positive perceptions regarding the ALICE initiative and are confident that the school can implement the ALICE plan when faced with a critical intruder incident.

Parent survey findings. The results of the analysis indicated that parents who completed the survey understood all of the concepts of ALICE. On average parents agreed that the school has the ability to handle a critical intruder incident. Elementary parents, middle school parents, and high school parents similarly agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. However, elementary parents agreed more strongly than middle school parents agreed that the school has the ability to handle a critical intruder incident. There were no differences in parent perceptions based on gender; both female and male parents agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation and the school has the ability to handle a critical intruder incident. Parents agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. Although a hypothesis test was not conducted, parents rated their perceptions of the Counter aspect of ALICE less strongly than they did the other four aspects. Overall, parents agreed that schools are safer as a result of the ALICE training.

Staff survey findings. The results of the analysis indicated that staff who completed the survey do understand all of the concepts of ALICE. On average staff agreed that the school has the ability to handle a critical intruder incident. However, elementary staff and middle school staff agreed more strongly than high school staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. Moreover, elementary staff and middle school staff agreed more strongly than high school staff agreed that the school has the ability to handle a critical intruder incident. There were also differences in staff perceptions of ALICE based on gender. Although marginal, female staff agreed less strongly than male staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. Staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. Staff perceptions of the aspects of ALICE were similar to parent perceptions. Although a hypothesis test was not conducted, staff also rated their perceptions of the Counter aspect of ALICE less strongly than they rated the other four aspects. Overall, staff agreed that schools are safer as a result of the ALICE training.

Findings Related to the Literature

At the time this study was conducted, educational research regarding perceptions of active shooter response protocol was scarce. The current study begins to fill that void, while adding to the body of research analyzing perceptions of crisis management plans. Because active shooter protocols presented a new approach, new research was needed. Research surrounding active shooters in the school setting is limited. Some studies have revealed post-traumatic event survivors' perceptions. Other research has been conducted

to determine student and staff perceptions of violence prevention programs. However, there are few studies that examine the impact of active shooter response training on stakeholder perceptions of safety preparedness (Ergenbright & Hubbard, 2012; Fallahi et al., 2009; Underhill, 2012). In fact, Ergenbright and Hubbard (2012) referred to the lack of information as a “methodological void identified in the literature review” (p. 16). Shooter response protocol research could prove to be an invaluable element in the future of shooter response planning in the educational setting. Nonetheless, there are some consistencies and differences related to the literature.

Celaya (2003) found that parents revealed a lack of understanding in all areas of the emergency preparedness plans, and noted that most parents learned about lockdown procedures from their children. Celaya (2003) also shared that only 7% of parents responded that they had received any communication in the form of the school’s alert and inform systems, and parents had no knowledge of campus evacuation procedures. Conversely, District A parent perceptions of ALICE were considerably improved. The results of the current study revealed that parents in District A understood all of the concepts of ALICE including Alert, Lockdown, Inform, and Evacuate. In addition, District A parents agreed that staff and students would be able to implement the all aspects of the ALICE plan in a crisis/intruder situation.

The current study revealed both similarities and differences to a similar study conducted by Carroll (2008) that explored school stakeholder perceptions in a Southern California district that had implemented systemic protocols to address school safety. Staff, students, and parents perceived a higher level of safety at school. “Parents believe that their children were safe at school” (Carroll, 2008, p. 80). Similarly, the results of the

current study revealed that District A parents strongly agreed that schools are safer as a result of the ALICE training. The opposite was true for staff perceptions. Carroll (2008) found that educators perceived a lack of confidence in school preparedness for an attack, whereas District A staff agreed that the school has the ability to handle a critical intruder incident and staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. Specifically, Carroll (2008) found that parent and staff perceptions did not improve in the area of alert and inform. In contrast, District A parents and staff agreed that staff and students would be able to implement Alert and Inform aspects of the ALICE plan in a crisis/intruder situation.

The results of this study presented similarities to Folks' (2008) findings that revealed improved perceptions from principals, staff, and students surrounding the implementation of new safety checklist protocols in schools. Overall, staff members perceived that their schools were safer with the newly implemented safety protocols (Folks, 2008). District A staff perceptions regarding the new ALICE safety protocols paralleled Folks' (2008) findings. District A staff agreed that schools are safer as a result of the new ALICE protocols. Staff agreed that the ALICE training has provided the school the ability to handle a critical intruder incident.

Booren and Handy (2009) found that perceptions of school safety significantly improve when the safety protocols are effectively communicated to all stakeholders including students, parents, teachers, administrators, and classified staff. Booren and Handy (2009) determined grade level differences in students' perceptions of safety preparedness. Although gender differences were not evident, student perceptions of safety protocols increased with grade level. The current study also revealed grade level

differences, but from adult perceptions. Elementary parents agreed more strongly than middle school parents agreed that the school has the ability to handle a critical intruder incident. Elementary staff and middle school staff agreed more strongly than high school staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. Moreover, elementary staff and middle school staff agreed more strongly than high school staff agreed that the school has the ability to handle a critical intruder incident. On average, all groups had positive perceptions of school safety protocols using the ALICE plan.

Chambers (2009) conducted a study in the St. Louis, Missouri area to assess K-12 school counselors' perceptions of preparedness to respond to acts of school violence and to evaluate their concern with personal safety. Chambers (2009) noted that counselors felt unsafe at school and perceived a need for enhanced training in preparation for school violence. Although Chambers' study examined counselor perceptions, and the current study explored all staff member perceptions, the need for enhanced training is consistent with this study. District A staff agreed that schools are safer and feel more prepared for a violent incident as a result of the ALICE training.

The findings from the current study present some consistencies with Fallahi et al. (2009), who conducted research that required students to share their perceptions of personal safety and school violence at Virginia Tech following the 2007 shootings. Fallahi et al. (2009) noted males felt less safe than females in their dormitory room, females thought it more likely that another shooting would occur, and females were more concerned that someone would attack them both on and off campus. Although the current study revealed no differences in parent perceptions based on gender, female staff

members agreed less strongly than male staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation.

The study conducted by Hamidizadeh et al. (2011) at the South West Power Generation Management Company in Iran revealed that staff perceptions of safety preparedness improve when staff are (1) aware of the plan, (2) they know their role in the contingent scenario, and (3) they train appropriately for crises. Although Hamidizadeh et al. (2011) found the facility to be weak in their planning for crisis management, there is a correlation to the current study. District A staff members' perceptions of safety improved with adequate training through the ALICE program. Once again, staff in District A did understand all of the concepts of ALICE, and agree that schools are safer and feel more prepared for a crisis as a result of the ALICE training. District A staff perceptions of safety preparedness are positive because they are (1) aware of the ALICE plan, (2) they know their role in the contingent scenario, and (3) they have trained appropriately for crises.

The current study also paralleled the study conducted by Alba (2011) which found a difference in principal's perceptions of safety preparedness according to school level (Alba, 2011). Although Alba's study examined principal's perceptions, and the current study explored all staff member perceptions, the results are similar. The current study also found differences in staff perceptions of ALICE based on school level assignment. Elementary staff and middle school staff agreed more strongly than high school staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. Moreover, elementary staff and middle school staff agreed

more strongly than high school staff that the school has the ability to handle a critical intruder incident.

The current study reinforced the findings from a study performed by Lee (2013), where it was determined that several factors affected educator perceptions in efforts to reduce the risks associated with school shootings. According to Lee (2013), teacher self-defense workshops can positively affect teacher perceptions of safety.

This finding indicates the significance of arming teachers with the knowledge of self-defense. In addition, most school shootings incidents are brief. Average response time by police to a mass shooting is 3 minutes. In most instances, that exceeds the time the shooter is engaged in killing. (Lee, 2013, p. 115)

This correlates to the staff perceptions noted in the current study. Although ALICE does not directly involve self-defense training, it does include training staff to use certain physical counter measures as a last resort when faced with an active shooter. ALICE counter measures are a form of self-defense.

Counter focuses on actions that create noise, movement, distance and distraction with the intent of reducing the shooter's ability to shoot accurately. Creating a dynamic environment decreases the shooter's chance of hitting a target and can provide the precious seconds needed in order to evacuate. (ALICE Training Institute, 2014, para. 5)

District A staff agreed that schools are safer as a result of the new ALICE protocols and felt confident that staff and students would be able to implement the Counter aspect.

The findings of the current study support Dixon (2014) regarding the need for response options when facing an active shooter situation. Dixon (2014) concluded that

teachers did not feel the traditional lockdown protocols provided solutions for locking doors, hiding students, and keeping students quiet during an active shooter situation.

Participants stated they “‘never had any training....The school is not as prepared as it could be....We haven’t explored all of our options’” (Dixon, 2014, p. 144-145).

However, after the Sandy Hook incident, teachers shared their desire to protect their students using Counter measures. Dixon (2014) revealed that all of the teachers in the study were willing to protect their students in an active shooter situation. The current study reinforces Dixon’s conclusions regarding a staff desire for more response options.

The results of the current study revealed that staff in District A understood all of the options of ALICE including Alert, Lockdown, Inform, Counter, and Evacuate.

Specifically, District A staff felt confident that staff and students would be able to implement both Lockdown and Counter options of the ALICE plan when faced with an active shooter.

Conclusions

This section provides conclusions drawn from the current study of parent and staff perceptions to determine what improvements District A may incorporate into the ALICE training to improve perceptions and ultimately improve school safety protocols in a crisis/intruder situation. Implications for action and recommendations for further research are included. Concluding remarks complete this section.

Implications for action. The results of this study have implications for continuous quality improvement of the ALICE implementation in District A. Building administrators and district level personnel can use the results of this study to further evaluate and improve safety-training procedures. Overall, the current study revealed

positive stakeholder perceptions of ALICE, yet there are several specific elements that may provide helpful feedback in efforts to alter or improve ALICE training efforts for the future. The data can be used to formulate immediate action plans and long-range strategic plans in relation to ALICE and overall school safety planning. Because District A is one of the first large districts in Kansas to implement a comprehensive systemic rollout of the ALICE plan, results may also be helpful to other districts and administrators in the area.

The results of the analysis indicated that parents and staff who responded to the survey understood all the concepts of ALICE. Both staff and parents similarly agreed that schools have the ability to handle a critical intruder incident and that overall schools are safer. However, in both parent and staff survey analysis, it was determined that elementary parents and staff felt more confident in the ALICE plan, followed by middle school and high school stakeholders. This may serve to provide the district with insights into the training and communication efforts utilized at the elementary levels compared to secondary levels. However, it may also indicate the nature of student clients at each level. Obviously, middle school and high school students present a greater risk as future perpetrators than do elementary students, which may lead to a lower level of confidence at the secondary levels.

Although the results of this study revealed no differences in parent perceptions based on gender, there was a marginal difference in staff perceptions of ALICE based on gender. Female staff agreed less strongly than male staff agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. This marginal gender difference is probably a predictable expectation for staff as they

face a dangerous intruder. However, this may provide District A with the feedback needed to provide more support and/or training options for female staff.

Finally both parents and staff respondents agreed that staff and students would be able to implement all aspects of the ALICE plan in a crisis/intruder situation. However, both parents and staff also rated their confidence in the Counter aspect of ALICE less strongly than the other four aspects. This may provide the necessary feedback to district leadership to improve training and/or communication specific to the counter measures espoused by the ALICE plan.

Recommendations for future research. This study served to fill a void in the body of research surrounding school safety preparedness as it relates to an active shooter scenario. Lee (2013) found a void in research regarding school shootings from the educator's perspective.

Scholars from the field of education have not shown active studies regarding school shootings in spite of the fact that teachers and students are most affected by the school shootings. The problem is that there has not been enough research conducted in the area of school shootings....there is a lack of scholarly work that attempts to analyze the school shootings. (Lee, 2013, p. 89)

This study may serve as a catalyst for more shooter response protocol research that could aide educational leaders prepare for an active shooter in the educational setting.

Although results of this study were generally positive concerning the ALICE implementation in District A, only a small sample of parent population responded to the survey. In this study, building principals distributed the electronic survey through weekly parent electronic mail in February and March of 2015. Distributing the survey at student

registration in August may glean a higher response. In a related study, Underhill (2012) examined how student bystanders would, or even should respond in potentially violent incidents. Results showed that the majority of students did not feel confident in executing any level of counter measures when they witness peer violence. In response, Underhill (2012) suggested an active bystander action model called A.R.I.S.E. (awareness, responsibility, information, safety, and execution). Parents and staff in District A rated their perceptions of the Counter aspect of ALICE less strongly than the other four aspects; therefore, it would be valuable to gain student perceptions of the Counter aspect of ALICE when confronted with an active shooter situation. Although the A.R.I.S.E program was designed to confront general school violence, student perceptions of the ALICE plan might provide some relevant parallels.

Moreover, gathering perceptions from parents in a more qualitative forum may provide specific feedback that could address potential areas of need. More specifically, building principals could utilize the survey to analyze training needs at the building level. Specific building data could be disaggregated by gender and grade level to determine staff perceptions in order to improve ALICE training efforts. Distributing this survey to secondary (middle school and high school) students could also provide insight into student perceptions of ALICE that may serve to enhance future ALICE drills and table top exercises.

Concluding remarks. Tragedies like Sandy Hook, Columbine, and Virginia Tech highlight the growing number of school shooting incidents in America. Event frequency has increased over the years with nine school shootings in 2010, 10 in 2011, 15 in 2012 (Klein, 2012), 36 in 2013, and 60 in 2014 (Everytown for Gun Safety, 2014). This has

prompted educational systems to implement changes in safety protocols. Sroka (2013) encourages a progressive school safety preparation philosophy: “Be prepared, not scared. Schools are not powerless. Awareness, education, and advocacy can help break down the attitude that it cannot happen here” (para. 3). District A has made a specific choice to seize that power to ensure that students and staff are prepared, not scared.

Frequency of school shootings has increased; police response time far exceeds the incident duration, and traditional lockdown methods “are not sufficient to reduce the rate of kill” (Ergenbright & Hubbard, 2012, p. 5). Because history has shown that traditional school safety methods have been unsuccessful, District A chose to implement the ALICE plan to empower students and staff with options to enhance their chances for survival. The ALICE protocol allows students and staff in District A to make decisions to lockdown, evacuate, or use counter-measures to mitigate violence in an active shooter incident. The results of this study revealed that ALICE provides strategies that make sense to stakeholders. Because they have been trained effectively and they have flexibility to select response options, stakeholders feel more confident in their school’s preparation for an active shooter incident. Parents and staff in District A feel that schools are safer because of the ALICE training program. Because District A implemented the ALICE plan, stakeholders are now prepared, not scared.

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Appendices

Appendix A: District A Permission to Conduct Research

February 3, 2014

To: Baker University Research Approval Board

From: [REDACTED]
Assistant Superintendent

RE: Use of A.L.I.C.E. Implementation Survey

Permission is hereby granted to Todd Dain to use data from the [REDACTED] A.L.I.C.E. Implementation Survey to fulfill requirements in his doctoral program. This survey will provide valuable feedback related to our safety/security initiative.

Please feel free to contact my office if further information/permission is needed.

Thank you

[REDACTED]
Assistant Superintendent

Appendix B: ALICE Staff Survey

ALICE Staff Survey

1-Strongly Agree 2-Agree 3-Neutral 4-Disagree 5-Strongly Disagree

Updated 8.20.14

1.	Staff Member Gender	Male	Female			
2.	Grade Level Assignment	Elementary	Middle School	High School		
1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Agree						
3.	I understand all the concepts of ALICE (Alert, Lockdown, Inform, Counter, and Evacuate).	1	2	3	4	5
4.	I believe that staff and students would be able to implement the ALERT aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
5.	I believe that staff and students would be able to implement the LOCKDOWN aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
6.	I believe that staff and students would be able to implement the INFORM aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
7.	I believe that staff and students would be able to implement the COUNTER aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
8.	I believe that staff and students would be able to implement the EVACUATE aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
9.	I believe that staff and students would be able to implement ALL aspects of the ALICE plan in a crisis/intruder situation.	1	2	3	4	5
10.	I feel confident in our school's ability to handle a critical intruder incident.	1	2	3	4	5
11.	Overall, I feel our schools will be safer as a result of the ALICE training.	1	2	3	4	5

Appendix C: ALICE Parent Survey

ALICE Parent Survey

1-Strongly Agree 2-Agree 3-Neutral 4-Disagree 5-Strongly Disagree

Updated 8.20.14

1.	Parent Gender	Male	Female			
2.	Grade Level of child(ren) <i>(check all that apply)</i>	Elementary	Middle School	High School		
1-Strongly Disagree 2-Disagree 3-Neutral 4-Agree 5-Strongly Agree						
3.	I understand all the concepts of ALICE (Alert, Lockdown, Inform, Counter, and Evacuate).	1	2	3	4	5
4.	I believe that staff and students would be able to implement the ALERT aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
5.	I believe that staff and students would be able to implement the LOCKDOWN aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
6.	I believe that staff and students would be able to implement the INFORM aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
7.	I believe that staff and students would be able to implement the COUNTER aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
8.	I believe that staff and students would be able to implement the EVACUATE aspect of the ALICE plan in a crisis/intruder situation	1	2	3	4	5
9.	I believe that staff and students would be able to implement ALL aspects of the ALICE plan in a crisis/intruder situation.	1	2	3	4	5
10.	I feel confident in our school's ability to handle a critical intruder incident.	1	2	3	4	5
11.	Overall, I feel our schools will be safer as a result of the ALICE training.	1	2	3	4	5

Appendix D: District A Research Application Request

Research Application Request-Internal

INSTRUCTIONS:

Please provide the following information so that your project can be considered in relation to district criteria. Allow a minimum of two (2) weeks for completion of the review process.

PLEASE NOTE: Your final application should include submission of the following requirements:

- (1) the on-line application,
- (2) a copy of your Human Experimentation Committee project review and approval (if applicable), and
- (3) a letter from your academic advisor/committee indicating that your research project has been reviewed and approved.



1. Applicant(s)Name: Todd Dain

2. Position: Assistant Principal

3. School/Location: [Redacted]

Other Location (please specify): [Redacted]

4. Telephone: [Redacted]

5. Email address: [Redacted]

6. Project Title: Perceptions of ALICE: K-12 Parent and Staff Reactions to ALICE Active Shooter Response Training

7. The proposed research is for: K-12 Parents and Staff in the [Redacted]

Other (please describe):

8. Anticipated Dates:

Beginning Date: August, 2014 Ending Date: October 2014 Date Final Report Available: December 2014

9. Participant Description:

Number of schools involved in the study: 55

Number of teachers involved in the study: 4442 staff members that includes 2,414 certified staff and 2028 classified employees.

Number of students involved in the study: 29,171

13. Brief review of the literature:

Plans involve protocol and procedures to provide staff and students with training for dangerous intruder situations. In June of 2013, The Department of Education, Department of Health and Human Services, Department of Homeland Security, Department of Justice, Federal Bureau of Investigation (FBI), and the Federal Emergency Management Agency (FEMA) collaborated to recommend "Run, Hide, Fight" for responding to an active shooter situation in the Guide for Developing High-Quality School Emergency Operations Plans. The agencies claim, "there are three basic options: run, hide, or fight. You can run away from the shooter, seek a secure place where you can hide and/or deny the shooter access, or incapacitate the shooter to survive and protect others from harm" (DOE et al., 2013, p. 63-64). One shooter response plan known as ALICE has been embraced by school districts across the nation. ALICE is an acronym for Alert, Lockdown, Inform, Counter, and Evacuate (ALICE: How to respond, 2014). The five components of ALICE provide staff with options to increase the chance of survival. Although there are some case studies involving shooting events and research on post-traumatic perceptions, there is no clear or complete information that indicates whether or how active shooter response training has any impact on stakeholder perceptions of safety.

14. Major research questions:

1. To what extent do parents perceive schools are prepared for an active shooter event using the ALICE plan?
2. To what extent do staff members perceive they are prepared for an active shooter event using the ALICE plan?
3. To what extent are parent perceptions of school preparedness for an active shooter event using the ALICE plan affected by student grade level (elementary, middle school, and high school)?
4. To what extent are staff perceptions of school preparedness for an active shooter event using the ALICE plan affected by grade level assignment (elementary, middle school, and high school)?
5. To what extent are parent perceptions of school preparedness for an active shooter event using the ALICE plan affected by gender?
6. To what extent are staff perceptions of school preparedness for an active shooter event using the ALICE plan affected by gender?
7. To what extent do parents perceive that staff and students would be able to implement the ALERT aspect of the ALICE plan in

19. Project Dissemination Plan:

Creation and administration of the survey took place through an online survey service within GoogleDocs, that which aids in the creation, administration, and data management of surveys (GoogleDocs, 2014). The combined survey instrument was typed into a Google Form so that research participants could access the survey online with a provided URL web link. A total of four e-mail requests to participate in the research study were sent to the sample. The survey was opened and the initial electronic mail message was sent to staff members on August _____, 2014 (see Appendix H). A second e-mail reminding participants about the survey was sent on September _____, 2014 (see Appendix H). Then the initial electronic mail message was sent to parents on October _____, 2014 (see Appendix I). A second and final e-mail was sent on October _____, 2015 (see Appendix I). The data collection process was ended and the survey was closed on November _____, 2014.

20.

ALICE: DISTRICT STAFF TO BE TRAINED ON ENHANCED LOCKDOWN PROTOCOL

Providing a safe and secure learning environment for students is of paramount importance in the Olathe Public Schools. The district has numerous practices, procedures and protocols in place each day to ensure a safe learning environment. Starting this spring, the district will begin training staff on a new safety protocol program called ALICE. ALICE is a protocol that enhances current lockdown procedures. The U.S. Department of Education, U.S. Department of Homeland Security and other educational leadership and governmental agencies have recommended that school districts develop a protocol that provides options to students and staff when facing threat or harm from an aggressive intruder. ALICE stands for Alert, Lockdown, Inform, Counter and Evacuate. ALICE empowers staff to exercise options in the event of such a critical incident, based on real-time information gathered during the incident. This enhanced protocol does not dictate to staff or students how they should react, but merely provides options for actions in addition to just lockdown. There will be districtwide information opportunities for parents moving forward. "As a school district we are continuously in a mode of improvement," Assistant Superintendent Erin Dugan said. "This is true in the area of safety and security as well. ALICE is an improvement to our current lockdown protocol as current.

Appendix E: District A Research Approval Notice

Todd,

We are in receipt of your printed research proposal and we are happy to approve your proposal as written. Upon completion of your research we ask that you report final results to our office. When providing final results of your research proposal, you will need to refer to [REDACTED] and our schools as a district and school(s) in the Midwest. Please do not use the district name or school names or parent names no reference to [REDACTED], in your results. Please contact [REDACTED] on questions.

Thank You

[REDACTED]

Assessment Manager

[REDACTED]

Appendix F: Institutional Review Board (IRB) Request



SCHOOL OF EDUCATION
GRADUATE DEPARTMENT

Date: _____
IRB PROTOCOL NUMBER _____
(IRB USE ONLY)

IRB REQUEST
Proposal for Research
Submitted to the Baker University Institutional Review Board

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

Department(s) **School of Education Graduate Department**

Name

Signature

- | | | |
|----------------------|---|-----------------------------|
| 1. Dr. Susan Rogers | <u> <i>Susan K Rogers</i> </u> | Major Advisor |
| 2. Margaret Waterman | <u> <i>Margaret Waterman</i> </u> | Research Analyst |
| 3. Dr. Russ Kokoruda | | University Committee Member |
| 4. Dr. Erin Dugan | | External Committee Member |

Principal Investigator: Todd Dain _____

Phone: [REDACTED]

Email: [REDACTED]

Mailing address: [REDACTED] Kansas [REDACTED]

Faculty sponsor: Dr. Susan Rogers

Phone: 913.344.1226 (office) 785.230.2801 (cell)

Email: srogers@bakeru.edu

Expected Category of Review: ☒ Exempt ☐ Expedited ☐ Full

II: Protocol: K-12 Parent and Staff Perceptions of ALICE Active Shooter Response Training

Summary

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

The [REDACTED] School District has implemented the ALICE active shooter response plan. The purpose of this research study is six-fold. The first purpose is to determine whether staff and parents perceive schools are prepared for an active shooter event using the ALICE plan. The second purpose is to determine whether staff perceptions of school preparedness for an active shooter event using the ALICE plan were affected by school level assignment (elementary, middle school, and high school). The third purpose is to determine whether parent perceptions of school preparedness for an active shooter event using the ALICE plan are affected by student school level (elementary, middle school, and high school). The fourth purpose is to determine whether staff and parent perceptions of school preparedness for an active shooter are affected by gender. The fifth purpose is to determine whether staff and parents perceive schools are able to implement each aspect of the ALICE plan (Alert, Lockdown, Inform, Counter, and Evacuate). The sixth purpose is to determine whether staff and parents perceive that schools are safer because of the ALICE training and implementation.

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

There will be no conditions or manipulations in this study.

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

The survey instrument used for this study was The Perceptions of ALICE Survey. Questions from the survey were created by the researcher. The quantitative survey gleaned numerical data to define perceptions of staff and parents surrounding the ALICE implementation in the [REDACTED] School District (see attached parent and staff surveys).

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

Subjects will not encounter psychological, social, physical or legal risk.

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

There will be no stress to subjects involved.

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

The subjects will not be deceived or misled in any way.

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

There will be no request for information which subjects might consider to be personal or sensitive.

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

Subjects will not be presented with materials which might be considered to be offensive, threatening, or degrading.

Approximately how much time will be demanded of each subject?

No time will be demanded of each subject by the researcher

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

The population for this research study will be all staff and parents. The sample will include all K-12 certified and classified staff members in the [REDACTED] School District with an active district electronic mail account. The sample also will include all K-12 parents in the [REDACTED] School District with an active electronic mail account in the district's Synergy Information System. A copy of the survey and electronic mail message that will be sent to both parents and staff are attached.

What steps will be taken to insure that each subject's participation is voluntary?

No steps will be taken by the researcher as the district will be collecting the survey data.

What if any inducements will be offered to the subjects for their participation?

No inducements will be offered.

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

The district will collect the survey data; therefore, the subjects do not need to give their consent to the researcher.

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

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

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

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

What steps will be taken to insure the confidentiality of the data?

An on-line, anonymous survey will be used, and no identifiable information will be included in the study.

Where will it be stored?

Data will be stored through a SurveyMonkey form that is password protected.

How long will it be stored?

Data will be stored for a period of five years.

What will be done with it after the study is completed?

Data will be deleted after five years.

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

There are no risks involved in this study.

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

Archival data will be utilized. Data from SurveyMonkey will be downloaded and imported into IBM® SPSS® Statistics Faculty Pack 22 for Windows.

Appendix G: ALICE Survey electronic mail message to staff

September 4, 2014
ALICE Survey electronic mail message to staff

Dear staff,

In the [REDACTED] we are committed to continuous improvement. With that in mind, we are seeking input from some of our most valued stakeholders: our staff on the implementation of the ALICE program, the district's enhanced lockdown protocol. Please take a moment to fill out this survey to provide feedback that will assist district staff in the continued implementation of this enhanced protocol moving forward.

The survey is completely anonymous. Your privacy is important; your answers will be combined with other participants and reported in summary form. Information reported will not indicate individual participants or school districts. There is no penalty should you choose not to participate or answer all of the questions. Your completion and submission of the survey will indicate your consent to participate.

Your input is valuable. Thank you for your time.

[REDACTED]
Assistant Superintendent of General Administration
[REDACTED]

Appendix H: ALICE Survey electronic mail message to parents

February 4, 2015

ALICE Survey electronic mail message to parents

In the [REDACTED] School District we are committed to continuous improvement. With that in mind, we are seeking input from some of our most valued stakeholders, our parents, on the implementation of the ALICE program, the district's enhanced lockdown protocol.

Please take a moment to fill out this survey (click on link below) to provide feedback that will assist district staff in the continued implementation of this enhanced protocol.

The survey is anonymous. Your privacy is important; your answers will be combined with other participants and reported in summary form. Information reported will not indicate individual participants or schools.

Your input is valuable. Thank you for your time. The link is below.

<https://www.surveymonkey.com/s/ALICEParentSurvey2014-15>

En el distrito escolar de [REDACTED] estamos comprometidos a seguir mejorar de forma continua. Con esto en mente, estamos pidiendo la opinión de las personas implicadas más importantes, nuestros padres; en la implementación del programa ALICE (por sus siglas en inglés), el protocolo de mejoramiento en caso de encierro.

Por favor tómese un momento para completar esta encuesta (presione en el enlace de abajo) para darnos su comentario y de esa manera asistir al personal del distrito escolar en la continua implementación de este protocolo mejorado.

La encuesta es anónima. Su privacidad es importante; su respuesta será combinada con otros participantes y reportada en forma de sumario. La información que se reporte no indicará quién es el participante ni de qué escuela proviene.

Su opinión es muy valiosa. Gracias por su tiempo. El enlace es el que sigue en la parte inferior.

<https://www.surveymonkey.com/r/AliceParentSurvey-SPANISH>

Appendix I: Institutional Review Board (IRB) Approval

September 3, 2014

Dear Todd Dain and Dr. Rogers,

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

Please be aware of the following:

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

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at CTodden@BakerU.edu or 785.594.8440.

Sincerely,

Chris Todden EdD
Chair, Baker University IRB

Baker University IRB
Committee
Verneda Edwards EdD
Sara Crump PhD
Molly Anderson
Scott Crenshaw