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MONTEREY, CALIFORNIA

THESIS

**ACTIVE SHOOTER RESPONSE: DEFENSIVE TACTICS
AND TACTICAL DECISION-MAKING FOR
ELEMENTARY SCHOOL TEACHERS AND STAFF**

by

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December 2017

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DECISION-MAKING FOR ELEMENTARY SCHOOL TEACHERS AND STAFF**

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PREFACE

I am a dad. I am not a law enforcement officer. I am not a soldier. I am a dad who was scared to death that his son would not be adequately protected in the event of an active shooter. I asked the questions, surveyed the layout of the school, and spoke with my son about his school's lockdown practices. None of them made me feel any better. Run, Hide, Fight provides a great foundation to build on, but I felt it needed more. I felt people needed to know *when to run*. They needed to know *where to hide*. Moreover, they needed to know *how to fight*. The fear I felt inspired me to conduct research on how to prepare elementary school teachers better to respond to active-shooter events. Based on this research, I feel that I have uncovered many simple practices that can be learned for free and practiced on a daily basis.

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ABSTRACT

This study analyzes characteristics of Run, Hide, Fight and defensive tactics and tactical-based decision-making tools that can be modified and applied to enhance depth and breadth of preparedness. Specifically, the research focuses on law enforcement and military tactics and tactical decision-making tools that could be taught to teachers and school staff for use in elementary school settings. Research sources include government operation manuals as well as literature from experts in the fields of defensive tactics and tactical decision-making.

While much of the tactical advice and techniques described may seem intimidating to the non-military or non-law-enforcement professional, they are not. The tactics provide basic guidance in mindset, movement, and self-protection strategies that have the potential of improving the likelihood of survival of students, faculty, and staff alike. Findings from the research are categorized as pre-action (mental preparation and situational awareness), action (defensive tactics and tactical decision-making techniques), and re-action (ongoing situational awareness, action analysis and modification). Additionally, the findings support the following recommendations: provide training to teachers and school staff on options-based responses (including defensive tactics and tactical decision-making), empower teachers to protect students by any means necessary, and establish reconnection procedures in the event of an incident.

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LIST OF ACRONYMS AND ABBREVIATIONS

AAR	after-action report
ALICE	alert lockdown inform counter evacuate
COA	courses of action
DHS	Department of Homeland Security
DOD	Department of Defense
EMS	emergency medical services
EOP	emergency operations plan
FBI	Federal Bureau of Investigation
GLOCK	get out, lock out, knock out
IMT	individual movement techniques
ISC	Interagency Security Committee
NIST	National Institute of Standards and Technology
NYPD	New York Police Department
OODA	observe, orient, decide, act
SET	stress exposure training
SPD	Scottsdale Police Department
SSIC	Safe School Initiative Committee
SWAT	special weapons and tactics
TADMUS	tactical decision making under stress
USAF	United States Air Force
USMC	United States Marine Corps

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EXECUTIVE SUMMARY

Active shooter events are not a new threat to educational facilities.¹ They remain a consistent threat and have the potential for significant impact.² Since the 1999 Columbine High School shootings, school-based active shooter events have remained in the public's awareness as a potential threat.³ Response strategies need to evolve beyond the basics of lockdowns.⁴ Run, Hide, Fight provides a firm foundation for the expansion of an options-based response strategy for school-based active shooter events.

The term *lockdown* refers to a conventional practice in which teachers isolate students in their respective classrooms, lock the doors, and attempt to impede any visibility into the rooms. Lockdowns were designed to address threats from the exterior of the school grounds.⁵ In active shooter events, mitigation efforts focused on outside threats become extremely problematic, as the shooter may have already accessed the interior of the school. Another strategic limitation is that once committed to an area perceived as secure, teachers and staff may have limited opportunities to re-evaluate responses and change their actions.

In 2012, the Department of Homeland Security (DHS) sponsored a policy for responding to active shooter events called Run, Hide, Fight.⁶ The adaptive strategy,

¹ Traci L. Wike and Mark W. Fraser, "School Shootings: Making Sense of the Senseless," *Aggression and Violent Behavior* 14, no. 3 (May 2009): 163, doi: 10.1016/j.avb.2009.01.005.

² J. Pete Blair and Katherine W. Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013* (Washington, DC: Texas State University and Federal Bureau of Investigation, United States Department of Justice, 2014), 21, <https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf>.

³ Michael E. Buerger and Geoffrey E. Buerger, "Those Terrible First Few Minutes," *FBI Law Enforcement Bulletin*, September 2010, <https://leb.fbi.gov/2010/september/those-terrible-first-few-minutes-revisiting-active-shooter-protocols-for-schools>.

⁴ Ibid.

⁵ Joseph A. Hendry Jr., *The Origin of Lockdown: Enduring Questions and One Man's Journey to Discover Where Lockdown Came from* (Hartland, WI: ALICE Training Institute, n.d.), 7, accessed November 17, 2016, <http://hartlake.org/wpcontent/uploads/2015/12/Origin-Of-Lockdown.pdf>.

⁶ Ready Houston, "RUN. HIDE. FIGHT.® Surviving an Active Shooter Event—English," YouTube video, 5:55, posted by the City of Houston, July 23, 2012, <https://www.youtube.com/watch?v=5VcSwejU2D0>.

funded by the DHS, was developed by the City of Houston.⁷ The public rollout of the strategy came on the heels of the 2012 movie-theater shooting in Aurora, Colorado.⁸ The DHS policy of Run, Hide, Fight has evolved for use by the general public, as well as those in schools in response to active shooter events.⁹

The research evaluated the elements of Run, Hide (Lockdown), Fight as response strategies to active shooter events in elementary schools. The objective of the study was to analyze what characteristics of current active shooter mitigation strategies are beneficial, what characteristics are not, and what other defensive tactics and tactical-based decision-making tools can be modified and applied to current strategies to enhance the overall depth and breadth of preparedness. Specifically, the research focused on law enforcement and military tactics and tactical decision-making that could be taught to teachers and school staff for use in elementary school settings.

Research found that commitment to a winning mindset could be a critical component in the potential survival of a threatening event. A lot of research addresses handling stressful situations and the impact of stress on decision-making. Teachers and school staff, while not frequently faced with situations of this type, must engage actively in practicing the principles of functioning in stressful environments. It does not cost money to practice and perfect situational awareness, mindset preparation, and a willingness to succeed. It is critical that school systems emphasize the importance of preparedness and a desire to support readiness processes. With the appropriate mindset practices in place, teachers and school staff can work to familiarize themselves with task-level tactical practices.

While much of the tactical advice and techniques described may seem intimidating to the non-military or non-law-enforcement professional, they are not. The

⁷ Emily Anne Epstein, “‘Run, Hide, Fight’: Homeland Security Releases Public Service Video on How to Get to Safety and Survive a Mass Shooting,” *Mail Online*, July 27, 2012, <http://www.dailymail.co.uk/news/article-2180041/Run-hide-fight-Homeland-Security-releases-public-service-video-to-safety-survive-mass-shooting.html>.

⁸ Ibid.

⁹ “Active Shooter Resources,” Federal Bureau of Investigation, accessed September 23, 2016, <https://www.fbi.gov/about/partnerships/office-of-partner-engagement/active-shooter-resources>.

tactics, broken down to their simplest components, provide basic guidance in movement and self-protection strategies that have the potential of furthering the likelihood of survival. Once committed to the “will to survive” and a “warrior mindset,” the goal is for teachers and school professionals to feel empowered in their ability to adapt to a multitude of threatening environments.¹⁰

Findings from the research fall into three general categories: Pre-action, action, and re-action. Pre-action refers to the steps leading up to an event that establish the necessary mindset and confidence for survival, and create an awareness that carries over into the action phase. Action refers to the actual response to a threat. The tactical movements and techniques that potential victims implement increase survival. Action also carries into re-action, and vice-versa, as a feedback loop. Re-action means the reevaluation phase of the situation. It analyzes whether the actions taken are improving or worsening the tactical advantage. That analysis determines the next action. Again, a looped system takes seconds to process. Individually, the significant findings of the research are the following.

A. PRE-ACTION

- School administrators empowering teachers to find success by any means necessary
- Situational and area awareness
- Commit to mission success

B. ACTION

- Do not delay
- Be decisive
- Move with a purpose

¹⁰ “Active Shooter Resources”; Air Land Sea Application Center, *Survival, Evasion, and Recovery: Multi-Service Tactics, Techniques, and Procedures for Survival, Evasion, and Recovery* (Hampton, VA: Department of Defense, 2007), <https://fas.org/irp/doddir/army/fm3-50-3.pdf>.

- Put distance between self and threat
- Cover over concealment
- Quick movements that maintain cover or concealment and provide a tactical advantage

C. **RE-ACTION**

- Stay ahead of threat tempo by doing the least expected action
- Stay flexible, adapt and overcome

D. **RECOMMENDATIONS**

- **Recommendation #1**—Provide training to teachers and school staff on options-based response to active shooter preparedness and response including defensive tactics and tactical decision-making.

This research provides defensive tactics and tactical decision-making available to school environments at little to no cost. The sources included provide further opportunity to establish new approaches to response and decision-making.

- **Recommendation #2**—Empower teachers through district policy to protect the children in their care by any means necessary.

Teachers and school staff need to be empowered to implement their training. Empowerment must be supported through policy to alleviate concerns over liability. If teachers make a tactical real-time decision to take their students out the window and into a nearby neighborhood to provide a safe haven from a shooter, they need to know that their ability to decide is supported.

- **Recommendation #3**—Establish reconnection procedures in the event of an incident.

With an options-based approach, reconnection procedures need to be developed. In the previous example when teachers implement steps to protect their children, a

process needs to be established for them to reconnect to the school administration to provide a student count or roster and arrange transportation to a family reunification area.

By recognizing options-based approaches as an acceptable strategy, school systems have the potential of dramatically increasing the likelihood of survival. Lockdown should be an option, not THE solution. This nation, as a society, entrusts teachers with the daily protection of the children. Why not empower them with the tools and opportunity to evolve that protection in an ever-increasing threat environment?

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I. INTRODUCTION

A. RESEARCH QUESTION

Which defensive tactics and tactical decision-making processes can be provided to teachers and school staff to enhance preparedness for active shooter events?

B. PROBLEM STATEMENT

In “Active Shooters in Secondary Schools: The Unique Role of the Physical Educator,” author Jason Winkle recognized the critical value that faculty play in dealing with the situation immediately following acts of school violence.¹ Beyond current strategies, opportunities exist to train teachers and school administrators in basic defensive tactical decision-making strategies. The goal of the training is to become more comfortable in reacting to a potentially chaotic situation. Teachers and school administrators are then able to make defensive tactical decisions that consider all available information. With an options-based decision-making matrix, teachers can make defensive tactical decisions regardless of the scenario they encounter. If they are not in their classroom, not with their entire class, or any other myriad of possible circumstances, they can make sound decisions based on the best information available. By educating teachers to be familiar with defensive tactical decision-making, they have the potential to be better equipped to react to active shooter events and better protect the students in their care.

Active shooter events are not a new threat to educational facilities.² They remain a consistent threat and have the potential for significant impact.³ Since the 1999

¹ George Matthew Snyder, “The Effects of Active Shooter Resilience Training Programs on College Students’ Perceptions of Personal Safety” (PhD diss., Liberty University, Lynchburg, VA, 2014), 44; Jason Winkle, “Active Shooters in Secondary Schools: The Unique Role of the Physical Educator,” *Illinois Journal for Health, Physical Education, Recreation & Dance* 63 (April 2009).

² Traci L. Wike and Mark W. Fraser, “School Shootings: Making Sense of the Senseless,” *Aggression and Violent Behavior* 14, no. 3 (May 2009): 163, doi: 10.1016/j.avb.2009.01.005.

³ J. Pete Blair and Katherine W. Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013* (Washington, DC: Texas State University and Federal Bureau of Investigation, United States Department of Justice, 2014), 21, <https://www.fbi.gov/file-repository/active-shooter-study-2000-2013-1.pdf>.

Columbine High School shootings, school-based active shooter events have remained in the public's awareness as a potential threat.⁴ Response strategies need to evolve beyond the basics of lockdowns.⁵ Run, Hide, Fight provides a firm foundation for the expansion of an options-based response strategy for school-based active shooter events.

The occurrence of school shootings, while a significant percentage of all active shooter events, is still very unlikely.⁶ Schools struggle with balancing cost and time commitments with the potential risks associated with various threats potentially impacting school-aged children.⁷ While balance is always necessary, the detrimental impact of a school-based active shooter cannot be understated. Beyond the given risk of injury and death, a potential psychological impact exists to all associated with the event.⁸ The fear of such events can spread far beyond the intended target. As a vulnerable population, school-aged children require additional protection from external threats. Options-based active shooter defensive tactical training for teachers and school administrators may provide the help they need to remain safe.

Government organizations have worked to advance strategies for school shootings since the Columbine High School shootings in 1999. The term *active shooter* came into the public vernacular in the wake of this tragedy.⁹ Government-developed active shooter strategies have historically focused on lockdowns as the primary defense for school

⁴ Michael E. Buerger and Geoffrey E. Buerger, "Those Terrible First Few Minutes," FBI Law Enforcement Bulletin, September 2010, <https://leb.fbi.gov/2010/september/those-terrible-first-few-minutes-revisiting-active-shooter-protocols-for-schools>.

⁵ Ibid.

⁶ National Association of School Psychologists and National Association of School Resource Officers, *Best Practice Considerations for Schools in Active Shooter and Other Armed Assailant Drills* (Bethesda, MD and Hoover, AL: National Association of School Psychologists and National Association of School Resource Officers, 2014), <https://nasro.org/cms/wp-content/uploads/2014/12/Best-Practice-Active-Shooter-Drills.pdf>.

⁷ Ibid.

⁸ Cathy Kennedy-Paine and Franci Crepeau-Hobson, "FBI Study of Active Shooter Incidents: Implications for School Psychologists," *National Association of School Psychologists, Communique* 43, no. 1 (2015): 22–23, <http://search.proquest.com.libproxy.nps.edu/docview/1785215596/abstract/98531B474D944CBPQ/31>.

⁹ Buerger and Buerger, "Those Terrible First Few Minutes."

shootings.¹⁰ Aided by after-action reports (AARs) following the 2012 mass shooting at the Sandy Hook Elementary School, which left 20 elementary students ages six and seven dead, adaptive active shooter strategies have now become more prevalent in schools.¹¹

The term *lockdown* refers to a conventional practice in which teachers isolate students in their respective classrooms, lock the doors, and attempt to impede any visibility into the rooms. Lockdowns were designed to address threats from the exterior of the school grounds.¹² In active shooter events, mitigation efforts focused on outside threats become extremely problematic, as the shooter may have already accessed the interior of the school. Another strategic limitation is that once committed to an area perceived as secure, teachers and staff may have limited opportunities to re-evaluate response and change their actions.

In 2012, the Department of Homeland Security (DHS) sponsored a policy for responding to active shooter events called Run, Hide, Fight.¹³ The adaptive strategy, funded by the DHS, was developed by the City of Houston.¹⁴ The public rollout of the strategy came on the heels of the 2012 movie-theater shooting in Aurora, Colorado.¹⁵ The

¹⁰ U.S. Department of Homeland Security, *Training First Responders and School Officials on Active Shooter Situations* (Washington, DC: Department of Homeland Security, n.d.), accessed November 15, 2016, https://www.dhs.gov/sites/default/files/publications/fact-sheet-training-first-responders_0.pdf.

¹¹ Steve Vogel, Sori Horwitz, and David A. Fahrenthold, "Sandy Hook Elementary Shooting Leaves 28 Dead, Law Enforcement Sources Say," *Washington Post*, December 14, 2012, https://www.washingtonpost.com/politics/sandy-hook-elementary-school-shooting-leaves-students-staff-dead/2012/12/14/24334570-461e-11e2-8e70-e1993528222d_story.html.

¹² Joseph A. Hendry Jr., *The Origin of Lockdown: Enduring Questions and One Man's Journey to Discover Where Lockdown Came from* (Hartland, WI: ALICE Training Institute, n.d.), 7, accessed November 17, 2016, <http://hartlake.org/wpcontent/uploads/2015/12/Origin-Of-Lockdown.pdf>.

¹³ Ready Houston, "RUN. HIDE. FIGHT.® Surviving an Active Shooter Event—English," YouTube video, 5:55, posted by the City of Houston, July 23, 2012, <https://www.youtube.com/watch?v=5VcSwejU2D0>.

¹⁴ Emily Anne Epstein, "'Run, Hide, Fight': Homeland Security Releases Public Service Video on How to Get to Safety and Survive a Mass Shooting," *Mail Online*, July 27, 2012, <http://www.dailymail.co.uk/news/article-2180041/Run-hide-fight-Homeland-Security-releases-public-service-video-to-safety-survive-mass-shooting.html>.

¹⁵ *Ibid.*

DHS policy of Run, Hide, Fight has evolved for use by the general public, as well as those in schools in response to active shooter events.¹⁶

The first fundamental principle of the DHS active shooter policy is to evacuate the affected area. If the first option becomes unavailable, hiding from sight is the next step. The last option—fight—guides the threatened individuals to confront the shooter in self-defense.¹⁷ Running, hiding and fighting are already natural instincts (akin to “fight or flight”).¹⁸ For this reason, the adaptable and actionable characteristics of Run, Hide, Fight make it a potential strategy for implementation across a broad spectrum of situations.¹⁹

The components of Run, Hide, Fight have had successes and failures both before and after the official rollout of the strategy. In the AARs of Columbine and Sandy Hook, numerous examples illustrated these achievements and failures.²⁰ Some who attempted to escape were shot in the process, while others made it to safety. Of those who hid, some avoided the shooter entirely while others were executed under their desks.²¹ Civilians who directly confronted shooters also had varied outcomes. The 2014 Berrendo Middle School (New Mexico) shooting concluded when a teacher ordered the shooter to put

¹⁶ “Active Shooter Resources,” Federal Bureau of Investigation, accessed September 23, 2016, <https://www.fbi.gov/about/partnerships/office-of-partner-engagement/active-shooter-resources>.

¹⁷ U.S. Department of Homeland Security, *Active Shooter: How to Respond* (Washington, DC: U.S. Department of Homeland Security, 2008), 4, https://www.dhs.gov/xlibrary/assets/active_shooter_booklet.pdf.

¹⁸ Holt Clark, “Run. Hide. Fight.: Effective Public Policy for Individual Safety in Response to Active Shooting Incidents,” *McKenzie Institute*, July 5, 2014, <http://mackenzieinstitute.com/run-hide-fight-effective-public-policy-individual-safety-response-active-shooting-incidents/>.

¹⁹ *Ibid.*

²⁰ William H. Erickson, *The Report of Governor Bill Owens’: Columbine Review Commission* (Littleton, CO: Columbine Review Commission, 2001), <https://schoolshooters.info/sites/default/files/Columbine%20-%20Governor's%20Commission%20Report.pdf>; Stephen J. Sedensky III, *Report of the State’s Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012* (Danbury, CT: Office of the State’s Attorney, Judicial District of Danbury: State of Connecticut Division of Criminal Justice, 2013), http://www.ct.gov/csao/lib/csao/Sandy_Hook_Final_Report.pdf; Scott D. Jackson et al., *Final Report of the Sandy Hook Advisory Commission* (Hartford, CT: Sandy Hook Advisory Commission, 2015), http://www.shac.ct.gov/SHAC_Final_Report_3-6-2015.pdf.

²¹ Erickson, *The Report of Governor Bill Owens’: Columbine Review Commission*, 29–32.

down his weapon.²² On the other hand, one of the victims killed in the 2013 Sparks Middle School (Nevada) shooting was a teacher who attempted to confront the shooter.²³

Run, Hide, Fight has definite benefits that should remain in the creation of a new model. It is easily remembered, adaptable, and in sync with natural instincts. Unfortunately, it is so non-specific that someone not typically trained in high-stress tactical scenarios—teachers and school staff, for example—might have difficulty implementing the model when faced with multiple and changing variables. For example, a panicked teacher unfamiliar with movement under fire may inadvertently stray or lead students into a firing lane. No one-size-fits-all approach addresses the evolving environment of an active shooter event.²⁴ Additionally, no mechanism is available during an event to assess the mental state of a shooter rapidly to decide the best course of action. A mitigation strategy, bolstered by tactical decision-making tools, can provide an element of structure to an unpredictable situation.

Sophisticated tactical decision-making models and principles can be adapted to the educational environment to provide better depth and breadth of understanding by teachers. For example, reciting “I’m up—They see me—I’m down” is a tool used by the U.S. military to limit exposure time for personnel confronted with a shooting threat.²⁵ The mnemonic can easily be attached to a lesson plan under the Run element to enhance the capabilities of a civilian population further. “I’m up—They see me—I’m down” is

²² Katherine W. Schweit, *Active Shooter Incidents in the United States in 2014 and 2015* (Washington, DC: Federal Bureau of Investigation, U.S. Department of Justice, 2016), 6, <https://www.fbi.gov/file-repository/active-shooter-incidents-us-2014-2015.pdf>.

²³ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 42.

²⁴ Laura Spadanuta, “Appendix C: The Best Defense” in *ASIS International School Safety and Security Council*, ed. Robin Hattersley (Alexandria, VA: ASIS International School Safety and Security Council, 2016), 53, https://kiernan.co/sites/default/files/ASIS%20School%20Safety%20%26%20Security%20Council%2C%20Active_Shooter_Open%20%282015%29.pdf.

²⁵ United States Marine Corps, *Fire and Movement* (Quantico, VA: United States Marine Corps, 2011), http://www.usnavy.vt.edu/Marines/PLC_Junior/Fall_Semester/TACT3019_Intro_to_Fire&Movement_Student_Outline.pdf.

just one example of the numerous tactical training methods that can be adapted to equip teachers and school staff better.²⁶

The research identified many similarities between military and law enforcement personnel and teachers. Both serve with a level of pride and dedication unique to their professions. Both commit to the service of others. Moreover, both find themselves directly responsible for the safety of themselves and those they protect. Adapted from the United States Department of the 'Army's "Warrior Ethos: Soldier's Creed," the following Teacher-Warrior Creed illustrates the dedication and commitment that teachers and school staff take responsibility for every day with the students in their charge.

I am a Teacher. I am a Warrior and a member of a team. I serve the community and my students. I will always place my students first. I will never accept defeat. I will never quit. I am disciplined, mentally tough, trained and proficient in my warrior tasks and drills. I am an expert and I am a professional. I stand ready to defend my students against any threat. I am a guardian of my students. I am a teacher.
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Figure 1. Teacher-Warrior Creed. (Modeled after the Warrior Ethos: Soldier's Creed.)²⁷

²⁶ Ibid.

²⁷ Adapted from United States Department of the Army, *The Infantry Rifle and Platoon Squad* (Washington, DC: Department of the Army, 2007), 1–10, <http://armyrotc.msu.edu/resources/FM3-21InfantryRifleSQPL.pdf>.

With strong dedication, commitment to the safety of their students, and a willingness to succeed, teachers and school staff can better prepare themselves to respond to threatening events. The Teacher-Warrior Creed solidifies that commitment to success and survival. Combined with other elements in the research, the Teacher-Warrior Creed serves to celebrate the selfless service that teachers have provided throughout their entire existence.

C. LITERATURE REVIEW

The literature review focuses on how school personnel train and react during active shooter events. Specifically, it concentrates on the psychological impact of training, as well as the many versions of Run, Hide, Fight that have evolved from various sources both governmental and private. It does not address law-enforcement response to active shooter incidents or the psychology of the shooters. A review of the literature represents three overarching categories: AARs, the psychological impact of training, and mitigation strategies.

Immediately following the Sandy Hook report in November 2013, an increased focus was placed upon school-shooter mitigation strategies.²⁸ The New York Police Department (NYPD) active shooter study was released shortly after the actual event but only included events up to December 2012.²⁹ The Blair and Schweit report does include the Sandy Hook incident in their study.³⁰ Although the Sandy Hook shooting appears in recent studies, limited literature remains regarding an options-based approach to active shooter responses and mitigation.

The second main area of consensus in the literature is the need to develop or expand schools' emergency operations plans (EOPs) to address active shooter

²⁸ Sedensky, *Report of the State's Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012*.

²⁹ Raymond W. Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation* (New York: New York City Police Department, 2012), iii, <http://www.nypdshield.org/public/SiteFiles/documents/Activeshooter.pdf>.

³⁰ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 7, 12, 15–17.

preparedness adequately.³¹ Experts agree that school response strategies need to be expanded to include other options besides lockdown. In the 2010 Federal Bureau of Investigation (FBI) publication, *Those Terrible First Few Minutes: Revisiting Active-Shooter Protocols for Schools*, authors Michael Buerger and Geoffrey Buerger discussed the foundational benefits of lockdown but also described the many variables where lockdown is not sufficient.³² The authors described one such variable as, “the most glaring gap involves non-classroom locations and activities.”³³ They went further to discuss such problematic scenarios as students at recess, in transition from class to class, and students getting off the bus who they stated may be better served by fleeing the scene and reconvening at an alternate location versus attempting to lock themselves down.³⁴ One of the takeaways of Sandy Hook is that lockdowns should not be the sole response to shootings. Experts also agree that an options-based approach needs to be recognized and applied based on the variables that differentiate one school from another.³⁵ Again, Buerger and Buerger stated, “An effective response requires school-specific planning and coordination grounded in local conditions.”³⁶

Ample literature and information provides a sound basis for the proposed topic. A significant gap in the literature is the lack of specificity when it comes to the needed types of changes to active shooter preparedness. The majority of the literature reviewed seems to stop just short of providing that kind of guidance. Specifically, tactical planning or training is hardly mentioned if at all. The next step of the research is to review what guidance, if any, was provided to teachers and school administrators immediately

³¹ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans* (Washington, DC: United States Department of Education, 2013), 57, https://www.fema.gov/media-library-data/20130726-1922-25045-3850/rem_s_k_12_guide.pdf.

³² Buerger and Buerger, “Those Terrible First Few Minutes.”

³³ Buerger and Buerger, “Those Terrible First Few Minutes.”

³⁴ Ibid.

³⁵ Tracy L. Frazzano and G. Matthew Snyder, “Hybrid Targeted Violence: Challenging Conventional ‘Active Shooter’ Response Strategies,” *Homeland Security Affairs* X, 2014, <http://search.proquest.com.libproxy.nps.edu/docview/1728289935/abstract/1CC4943198E144AEPQ/10>.

³⁶ Buerger and Buerger, “Those Terrible First Few Minutes.”

following past events. Value and a need for furthering research into the specifics of advancing defensive tactical decision-making training for teachers still exists.

1. After-Action Reports

The majority of the literature associated with past active-shooter events analyzes the situations from a law-enforcement response perspective. However, studies show that in the majority of cases, the shooter is no longer a threat before the arrival of law enforcement. In a 2014 study on active shooter events in the United States from 2000 to 2013, Blair and Schweit reported that 66.9 percent of the cases they analyzed ended before the arrival of law enforcement.³⁷ This statistic is valuable in illustrating that the expectation of law enforcement mitigating the shooter may not be reasonable.

Although few statistical studies regarding historical active shooter events exist, the few studies that do show consistent statistics across time.³⁸ Researchers from the NYPD identified 230 quantifiable active shooter events occurring over 279 locations between 1966 and 2012.³⁹ Of the locations analyzed, 68 happened in schools, which accounted for approximately 24 percent of the cases.⁴⁰ The 2014 Blair and Schweit study also showed that approximately 24 percent of events occurred in educational facilities.⁴¹ The total number of school-based shootings equates to 39 out of 160 events.⁴² Blair and Schweit report that of 39 school-based events, 27 occurred at K-12 institutions.⁴³ Blair and Schweit's findings regarding the percentage of school shootings are consistent with

³⁷ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 9.

³⁸ Joel A. Cappelán, "Lone Wolf Terrorist or Deranged Shooter? A Study of Ideological Active Shooter Events in the United States, 1970–2014," *Studies in Conflict and Terrorism* 38, no. 6 (2015): 397, doi: <http://dx.doi.org/10.1080/1057610X.2015.1008341>.

³⁹ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 4, 8.

⁴⁰ *Ibid.*, 8.

⁴¹ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 13.

⁴² *Ibid.*

⁴³ *Ibid.*

those of a 2012 NYPD report.⁴⁴ Also, the Blair and Schweit study demonstrates an overall increase in active shooter events from 2000 to 2013.⁴⁵ In the first seven years of the Blair and Schweit study, active shooter events averaged 6.4 per year.⁴⁶ In the last seven years of the study, that number increased to 16.4 events per year.⁴⁷ Given the statistics, it can be inferred that an increase in school-based shootings is very likely.

2. Psychological Impact of Training

Many school agencies have made changes to how they train their staff and students to respond to active shooter events. These changes in programming have raised numerous questions regarding the potential psychological impact of proposed training styles. The FBI has focused on the role of school psychologists in both pre-event mitigation and assistance in dealing with the impacts of training.⁴⁸ The majority of the literature on the topic agrees that both running and hiding are potentially beneficial responses to active shooters and those facilities must approach implementation of these steps strategically.

The research shows two distinct schools of thought regarding training to confront the shooter physically. Critics of the practice contend it is an unrealistic expectation to have school-age children confront active shooters.⁴⁹ Also, they feel the training itself can have a detrimental impact on the psyches of both teachers and students participating in

⁴⁴ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*.

⁴⁵ *Ibid.*, 9.

⁴⁶ *Ibid.*, 6.

⁴⁷ *Ibid.*

⁴⁸ Kennedy-Paine and Crepeau-Hobson, "FBI Study of Active Shooter Incidents: Implications for School Psychologists," 22–23.

⁴⁹ Steve Albrecht, "The Truth behind the Run-Hide-Fight Debate," *Psychology Today*, August 25, 2014, <http://www.psychologytoday.com/blog/the-act-violence/201408/the-truth-behind-the-run-hide-fight-debate>.

the training.⁵⁰ The U.S. Department of Education offers that confronting the shooter may be the only option remaining when all other possibilities have been exhausted.⁵¹

Carole Rider's 2015 doctoral dissertation is a significant empirical study that analyzes the relationship between training and perceived ability to react to an event.⁵² The study analyzes teachers in Mississippi and how prepared they felt for responding to an active shooter based on which training they or policies their district had implemented.⁵³ The study shows that teachers who have a regular amount of active shooter training feel far more prepared to respond to an event.⁵⁴ Although isolated to a particular region, Rider's study correlates a positive perception of preparedness with increased active shooter training.⁵⁵

Matthew Snyder found results similar to Rider's in "The Effects of Active Shooter Resilience Training Programs on College Students' Perceptions of Personal Safety." Snyder found, "the research suggest that active shooter awareness training programs do positively influence students in a way that better prepares them to identify, report, react to, and recover from an active shooter incident (see Table 1)."⁵⁶

Snyder's research (illustrated in Table 1) again shows an overall increase in the perception of safety and resilience from active shooter training. While focused on college students, a correlation can be made based on Snyder's and Rider's findings that adult learners experience a greater sense of preparedness from training.

⁵⁰ Romeo Vitelli, "Should Students Be Trained to Respond to School Shootings?" *Psychology Today*, January 13, 2016, <https://www.psychologytoday.com/blog/media-spotlight/201601/should-students-be-trained-respond-school-shootings>.

⁵¹ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 65–66.

⁵² Carole Frances Rider, "Teachers' Perceptions of Their Ability to Respond to an Active Shooter Incident" (PhD diss., University of Southern Mississippi, 2015), 1, <http://aquila.usm.edu/cgi/viewcontent.cgi?article=1067&context=dissertations>.

⁵³ Ibid., 9, 108.

⁵⁴ Rider, "Teachers' Perceptions of Their Ability to Respond to an Active Shooter Incident," 142.

⁵⁵ Ibid., 125.

⁵⁶ Snyder, "The Effects of Active Shooter Resilience Training Programs on College Students' Perceptions of Personal Safety," 73.

Table 1. Comparison of Treatment Group's Safety, Fear, and Resilience Scores⁵⁷

Variable	DHS (N=29)		CPPS (N=38)		DHS & CPPS (N=39)		Control Group (N=30)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Safety	4.793	.4913	4.579	.5987	4.846	.3655	3.467	1.306
Fear	2.207	2.6643	3.026	2.4104	2.128	2.2616	2.0736	.3786
Resilience	.6652	.14035	.7218	.11955	.7592	.13364	.6470	.1676

3. Mitigation Strategies

In 2012, the DHS sponsored a policy for responding to active shooter events called Run, Hide, Fight. The adaptive strategy, developed with DHS funding by the City of Houston, came on the heels of the 2012 movie-theater shooting in Aurora, Colorado.⁵⁸ The DHS's Run, Hide, Fight has evolved for use by the general public, as well as those in schools in response to active shooter events.⁵⁹ The most prevalent iterations of Run, Hide, Fight are alert lockdown inform counter evacuate (ALICE), which was developed by Greg Crane with the ALICE Training Institute, and get out, lockout, knockout (GLOCK), which was prepared by Basim Abu-Hamid.⁶⁰ Limited literature exists regarding the evolution of these various mitigation strategies.

⁵⁷ Source: Ibid.

⁵⁸ Epstein, "'Run, Hide, Fight': Homeland Security Releases Public Service Video on How to Get to Safety and Survive a Mass Shooting."

⁵⁹ "Active Shooter Resources."

⁶⁰ National School Safety and Security Services, "ALICE & Run-Hide-Fight Training: Teaching Students to Attack Gunmen," *School Security*, accessed September 23, 2016, <http://www.schoolsecurity.org/trends/alice-training/>; "Get Out, Lock Out, Knock Out," Polk County Itemizer-Observer, April 16, 2013, <http://www.polkio.com/news/2013/apr/16/get-out-lock-out-knock-out/>; Cody Vance, "Active Shooter Training," Alice Training Institute, accessed December 8, 2016, <https://www.alicetraining.com/about-us/>; Brad Bakke, "Surviving an Active Shooter Incident is a Matter of Get Out, Lock Out, Knock Out," Chemeketa Community College, January 30, 2013, <http://blogs.chemeketa.edu/courier/2013/02/15/surviving-an-active-shooter-incident-is-a-matter-of-get-out-lock-out-knock-out/>.

The scientific backing behind the development of the Run, Hide, Fight strategy remains unclear. Despite the lack of available scientific evidence, it is apparent from the literature review that proposed mitigation strategies are relatively consistent. Most, if not all of the strategies researched were some form of Run, Hide, Fight. For example, the United States Air Force (USAF) produced an active shooter guideline in 2012 that highlighted its mitigation strategy as escape, barricade, or fight.⁶¹

ASIS, an international network of security professionals, published a white paper in 2016 through its School Safety and Security Council. In the article, Laura Spadanuta interviewed numerous subject matter experts in the field of school security. Of those interviewed, not all agree on the details of best practices but do agree with the overarching messages. Kenneth Trump, president of National School Safety and Security Services, felt that trends in school active shooter strategy changes were too quick to abandon proven techniques, such as lockdown.⁶² Amy Klinger, an educational administration professor at Ashland University (Ohio), viewed the expansion of mitigation strategies as an enhancement to current techniques.⁶³ A point of continued contention is the subject of whether to teach K-12 students to fight. Again, Trump disagrees with the approach.⁶⁴ Conversely, Linda Watson, a security consultant for Whirlaway group LLC, supports the notion of when all else fails, it is essential to do whatever it takes to survive.⁶⁵

Literature that outlines specific changes for active shooter response in schools is limited. In 2010, Buerger and Buerger called for further development of flexible strategies related to school-based active shooter events.⁶⁶ They contend that active shooter strategies in schools do not consider the flexibility needed to avoid becoming a

⁶¹ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)* (Washington, DC: United States Air Force, 2012), 6–1, [http://static.epublishing.af.mil/production/1/af_a3_5/publication/aftp3-4.6_as/aftp3-4.6_active_shooter_\(20121114\).pdf](http://static.epublishing.af.mil/production/1/af_a3_5/publication/aftp3-4.6_as/aftp3-4.6_active_shooter_(20121114).pdf).

⁶² Spadanuta, “Appendix C: The Best Defense,” 53.

⁶³ Ibid.

⁶⁴ Ibid., 55.

⁶⁵ Ibid.

⁶⁶ Buerger and Buerger, “Those Terrible First Few Minutes.”

victim.⁶⁷ Many experts have called for the need to advance active shooter strategies for schools in the wake of the Sandy Hook shooting, but have failed to provide specific details as to what those changes need to be. The majority of recommendations focus more on the need for schools to develop thorough emergency-operation plans rather than specifically detailing how active shooter responses should adjust.⁶⁸

Literature exists regarding different sources of tactical decision-making tools and strategies. Department of Defense (DOD) related standard operating procedures and guidelines are available in an open-source format. For example, the United States Marine Corps has information regarding tactical movement while under fire.⁶⁹ Additionally, the USAF discusses the “warrior mindset” to provide mental clarity in the face of stressful situations.⁷⁰ Documents of this type have many components of tactical decision-making.

D. RESEARCH DESIGN

The research evaluated the elements of Run, Hide (Lockdown), Fight as response strategies to active-shooter events in elementary schools. The objective of the study was to analyze what characteristics of current active-shooter mitigation strategies are beneficial, what characteristics are not, and what other defensive tactics and tactical based decision-making tools can be modified and applied to current strategies to enhance the overall depth and breadth of preparedness. Specifically, the research focused on law enforcement and military tactics and tactical decision-making that could be taught to teachers and school staff for use in elementary school settings.

While all aspects surrounding elementary school response to active-shooter events have significant value, it was important to limit the focus of research to maintain a manageable scope that could be comprehensively evaluated. Public safety (law enforcement/fire/emergency medical services (ems)) response was not evaluated, as those

⁶⁷ Ibid.

⁶⁸ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 56–58, 63–66.

⁶⁹ United States Marine Corps, *Fire and Movement*.

⁷⁰ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 1–1.

are separate from the actions taken by teachers and school staff. Additionally, these factors were avoided to not create an inappropriate dependence on the thought that someone else will solve the issue. Another limitation was the analysis of after-event mitigation/recovery. The research did not study the reunification process or long-term implications of an event. Based on the highly complex aspects of the psychology of shooter/warning signs/indicators of potential threats, this area was excluded from the research.

With the research being focused on elementary schools, additional limitations of the research presented themselves. First, the research focused on the training and preparation of teachers, school administrators, and staff. Training of the students was not researched. Training elementary students in Run, Hide, Fight is a debated topic and beyond the scope of the research. Higher education settings were not researched in depth, based on student age and capability differences, other than to draw similarities and takeaways that could be applied to lower grade levels. Also, what practices were in place in individual schools was not researched, as that would create too large of a scope. Based on the overall research it was assumed that elementary schools fall somewhere into the broad categories of Run, Hide, Fight and lockdown.

The main information source for Run, Hide, Fight were the Department of Homeland Security active-shooter documents. The Department of Education provided Lockdown information. DOD training manuals, as well as law enforcement procedural documents, provided tactics and tactical decision-making procedures. Literature-based sources were AARs, such as the Sandy Hook Commission final report, and scholarly research providing historical data and analysis. Specifically, this research included Blair and Schweit's studies of active-shooter events, as well as the 2012 NYPD review.

The type and mode of analysis followed for the research was "policy analysis" based on Bardach and Patashnik's *Practical Guide to Policy Analysis*.⁷¹ The specific steps of the analysis were the following:

⁷¹ Eugene Bardach and Eric M. Patashnik, *Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, 5th ed. (Washington, DC: Congressional Quarterly, Inc., 2015).

- Determine the common characteristics of success or failure for current mitigation strategies.
- Research what defensive tactics and tactical decision-making tools exist in other disciplines with a focus on military and law enforcement.
- Analyze what implementation would look like.
- Analyze what barriers exist to implementation and what potential problems it creates and then attempt to mitigate those issues in advance.
- Create an output tool and recommended implementation plan.

The research output is a tangible training tool providing recommendations for teachers and school staff to aid them in tactical-based decision-making, preparation, and response to active-shooter events. Recommendations from the research provide for the development of a self-guided online module that provides a continuing education style mode of delivery for ease of access at minimal cost. The foundational education provides a firm base from which conversations and interactions can occur with local public safety agencies, such as police, fire, emergency medical services (EMS), and emergency management.

Based on the preliminary work conducted on the topic, it was determined that the project was possible. Enough credible information was available on the topic to draw the various conclusions and connections to relate the different disciplines (elementary school teachers and the military). Many research projects have been conducted that analyzed the myriad variable aspects of active shooter events. None of the studies located described, in depth, the defensive tactics and tactical decision-making tools to be applied specifically to these situations by elementary school teachers and staff. The research summarizes the benefits of Run, Hide, Fight, discusses the complications of the protocol, describes the defensive tactics and tactical decision-making tools available to assist in minimizing potential risk, and applies these tools and tactics to the elementary school setting.

II. RUN, HIDE, FIGHT

Development of new self-protection strategies was necessary to adapt to the increasing and changing environment of active shooter events.⁷² By providing a memorable and adaptable approach to self-protection, the DHS has provided a potential solution applicable to a variety of scenarios. Also, the policy provides a starting point from which to build further programs and plans.⁷³ Run, Hide, Fight is adaptable to a multitude of situations and functions as a cost-effective foundation from which to customize individual response and mitigation strategies. This chapter explores the need for change, researches the three aspects of the protocol, discusses the benefits and challenges of each practice, and summarizes their efficacy.

A. HISTORY OF SCHOOL SHOOTINGS

School shootings in the United States have occurred as far back as the Pontiac's Rebellion on July 26, 1764.⁷⁴ Since then, the number and severity of events have varied but remained a consistent threat. In 1999, school based active shooter events hit the main stage of public awareness with the Columbine High School shootings.⁷⁵ Since that time, the mitigation and response strategies for such events have had a different focus and discussion. Although few statistical studies are available regarding historical active shooter events, those that do exist show consistent statistics from various eras in time.⁷⁶ Researchers from the NYPD identified 230 quantifiable active shooter events occurring over 279 locations between 1966 and 2012.⁷⁷ Of the locations analyzed, 68 took place in

⁷² Buerger and Buerger, "Those Terrible First Few Minutes."

⁷³ "Developing Emergency Operations Plans for Schools," Federal Bureau of Investigation, 56–58, 63–66, June 2013, <https://www.fbi.gov/file-repository/rem-s-k-12-guide-508.pdf/view>.

⁷⁴ "History of School Shootings in the United States," K12 Academics, accessed November 23, 2016, <http://www.k12academics.com/school-shootings/history-school-shootings-united-states#.WDXak3eZP-Y>.

⁷⁵ Buerger and Buerger, "Those Terrible First Few Minutes."

⁷⁶ Cappelán, "Lone Wolf Terrorist or Deranged Shooter? A Study of Ideological Active Shooter Events in the United States, 1970–2014," 397.

⁷⁷ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 4, 8.

schools, which accounted for approximately 24 percent of the cases.⁷⁸ The 2014 Blair and Schweit study also shows that approximately 24 percent of events occurred in educational facilities.⁷⁹ The total amount of school-based shootings equates to 39 out of 160 events.⁸⁰ Blair and Schweit report that of the 39 school-based events, 27 occurred at K-12 institutions.⁸¹ Blair and Schweit's findings regarding the percentage of school shootings are consistent with those of the 2012 NYPD report. The studies cited show a consistent proportion of active shooter events occurring in educational settings (Figure 2).⁸² Also, the Blair and Schweit study demonstrates an overall increase in active shooter events from 2000 to 2013 (Figure 3).⁸³ In the first seven years of the Blair and Schweit study, active shooter events averaged 6.4 per year.⁸⁴ In the last seven years of the study, that number increased to 16.4 events per year.⁸⁵ Given the statistics, it can be inferred that a continuing increase in school-based shootings is very likely.

⁷⁸ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 8.

⁷⁹ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 13.

⁸⁰ *Ibid.*

⁸¹ *Ibid.*

⁸² *Ibid.*

⁸³ *Ibid.*, 9.

⁸⁴ *Ibid.*, 6.

⁸⁵ *Ibid.*

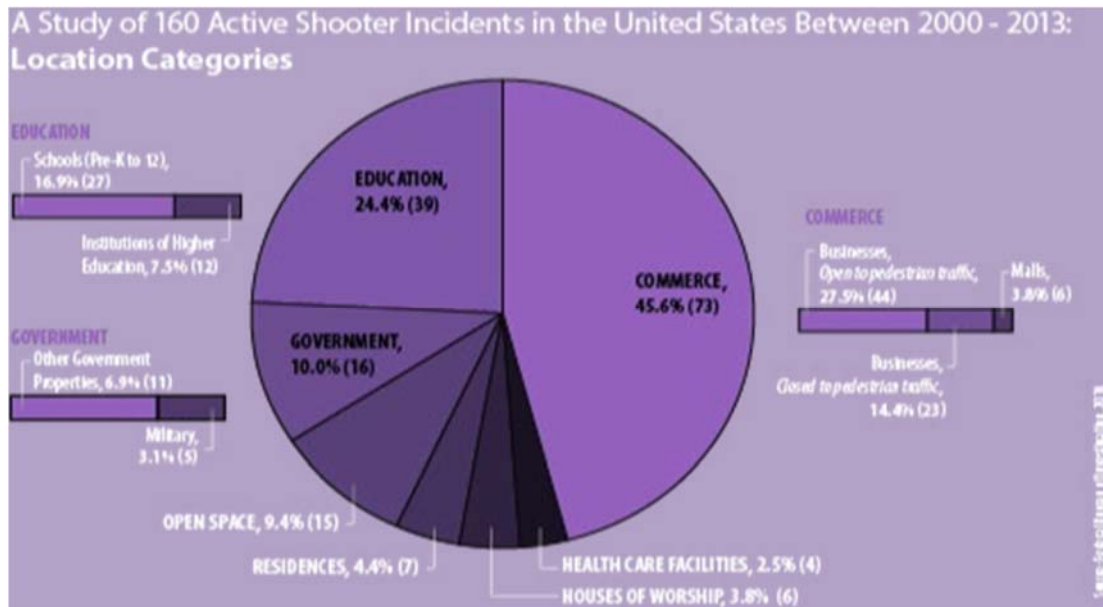


Figure 2. Active Shooter Incidents: Location Categories⁸⁶

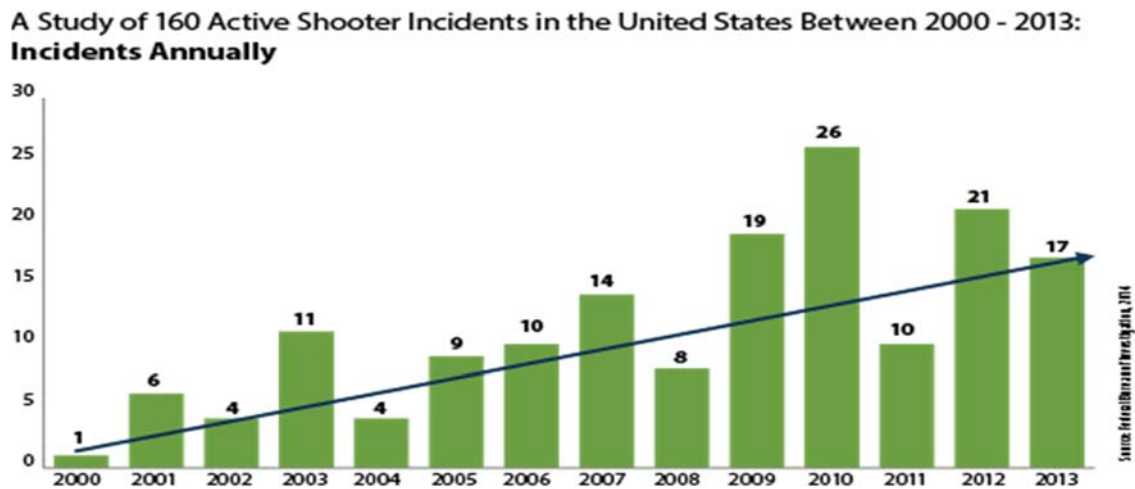


Figure 3. Active Shooter Incidents: Incidents Annually⁸⁷

⁸⁶ Source: Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 6.

⁸⁷ Source: Ibid., 8.

While all school-based shootings are significant, a few have had a direct impact on the evolution of mitigation strategies. The 1999 Columbine High School shooting brought the term “active shooter” to the forefront of society’s vocabulary.⁸⁸ Various government agencies began discussions regarding what changes needed to be made in the overall reaction strategy to school-based shootings after Columbine. The majority of these reviews appeared to be centered on law enforcement’s actions as they relate to overall response tactics.

B. NEED FOR CHANGE

The shooting at Virginia Tech is a dynamic example of the many elements of active-shooter events the research evaluated. In April 2007, Seung Hui Cho killed 32 teachers and students.⁸⁹ Students and staff, to lessen the impact of the situation, implemented a variety of tactics. In room 211, the teacher saw the shooter in the hallway, moved back to the classroom, and began to barricade the door with lightweight desks.⁹⁰ Cho then entered the room, pushing past the desks and killing an Air Force cadet who had attempted to rush him, and opened fire on the rest of the classroom.⁹¹ After leaving the room and returning, Cho shot everyone in the classroom; those already dead, and those attempting to play dead, and killed approximately two-thirds of the students in the class.⁹²

In room 205, students attempted to barricade the door with a large teacher’s desk.⁹³ Cho fired through the door and hit no one.⁹⁴ In the end, Cho never gained access to classroom 205, and no students were shot or killed.⁹⁵ Abandoning his attempts at room

⁸⁸ Buerger and Buerger, “Those Terrible First Few Minutes.”

⁸⁹ “Massacre at Virginia Tech Leaves 32 Dead,” History, April 16, 2007, <http://www.history.com/this-day-in-history/massacre-at-virginia-tech-leaves-32-dead>.

⁹⁰ John P. Blair et al., *Active Shooter Events and Response* (Boca Raton, FL: CRC Press Taylor & Francis Group, 2013), 195.

⁹¹ Ibid.

⁹² Ibid., 196.

⁹³ Ibid., 195.

⁹⁴ Ibid.

⁹⁵ Ibid.

205, Cho moved to room 204.⁹⁶ In room 204, the teacher had placed himself against the door in an attempt to barricade it and advised his students to exit through a window.⁹⁷ When Cho attacked room 204, he shot through the door, hitting the teacher, then pushed his way through the door and killed him.⁹⁸ After gaining entry, Cho shot everyone who had not escaped through the window.⁹⁹ Blair et al. summarize the actions taken and resulting impacts in Figure 4.

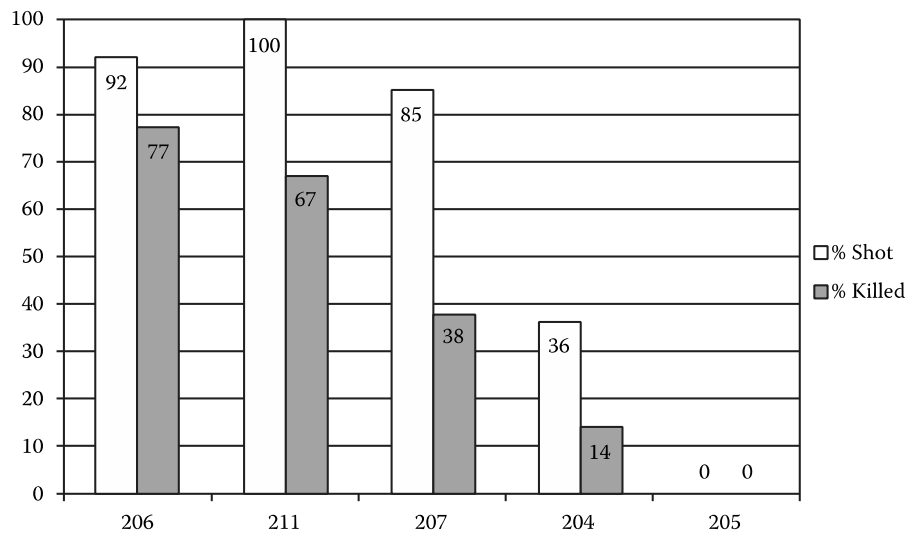


Figure 4. Number of People Shot and Killed at Virginia Tech¹⁰⁰

The conditions are as follows:

- “In room 206 where the potential victims took no defensive actions other than freezing, 92 percent of the people were shot and more than three-quarters of them died.

⁹⁶ Blair et al., *Active Shooter Events and Response* (Boca Raton, FL: CRC Press Taylor & Francis Group, 2013), 195.

⁹⁷ Ibid., 195–196.

⁹⁸ Ibid., 196.

⁹⁹ Ibid.

¹⁰⁰ Source: Ibid.

- In room 211, where the potential victims attempted unsuccessfully to barricade the door and Cadet LaPorte attempted to attack the shooter, everyone was shot and about two-thirds were killed.
- In room 207, no initial defensive action was taken, but the potential victims successfully barricaded the door to prevent the shooter from reentering. Here, 85 percent of the people were shot and 38 percent of those in the classroom died.
- Room 204 performed a denial and then attempted to avoid the shooter. While the denial was ultimately unsuccessful, it provided most of the students with time to escape. In this room, 36 percent of the occupants were shot and 14 percent of those in the classroom were killed.
- Room 205 successfully denied the shooter access to the room. The shooter fired through the door, but no one was hit or killed.”¹⁰¹

Blair, a leading researcher in the field of active shooter events, deduced along with his co-authors from the Virginia Tech research, “The data show a clear pattern that those who took some form of defensive action at Virginia Tech fared much better than those who did not. Freezing or playing dead were not good options.”¹⁰²

Combining these findings with Blair and Martaindale’s previous research on active shooter events from 2000–2010, the authors of *Active Shooter Events and Response* found that “you are not helpless during these events” and “what you do matters.”¹⁰³ Blair et al. continued to find other valuable takeaways from the events studied. Consistent with other professionals in the field, Blair et al. found that “people need options other than lockdown.”¹⁰⁴ Additionally, they found that many active shooter

¹⁰¹ Blair et al., *Active Shooter Events and Response*, 196–197.

¹⁰² Ibid., 197.

¹⁰³ Ibid., 198.

¹⁰⁴ Ibid.

policies were too lengthy and inappropriately attempted to be all encompassing.¹⁰⁵ Based on the extreme variability of these events, long and wordy policies and procedures are ineffective at addressing every situation. Blair et al. note, “it is simply not possible to write a policy that will address every possibility.”¹⁰⁶ Again, Blair et al. reinforce the idea that it is necessary to engage in options and be adaptable versus trying to define every potential variable of every possible situation.

C. RUN AS A RESPONSE STRATEGY

Escaping danger is one of the most primal actions of the human brain. Fight or flight is an automated neurologic response either to confront danger directly or flee the area. The Run, Hide, Fight practice echoes this primal instinct. Many variations of run are studied, discussed, and practiced: evacuate, evade, and avoid among them. The U.S. Department of Education provides guidelines for evacuation in the *Guide for Developing High-Quality School Emergency Operations Plans*. Specifically, the annex speaks to:

- “How to safely move students and visitors to designated assembly areas from classrooms, outside areas, cafeterias, and other school locations.
- How to evacuate when the primary evacuation route is unusable.
- How to evacuate students who are not with a teacher or staff member.
- How to evacuate individuals with disabilities (along with service animals and assistive devices, e.g., wheelchairs) and others with access and functional needs, including language, transportation, and medical needs.”¹⁰⁷

¹⁰⁵ Blair et al., *Active Shooter Events and Response*, 198.

¹⁰⁶ Ibid.

¹⁰⁷ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 28–29.

Specifically, the 2013 guide prioritizes evacuation as the number one priority, as safely available, to respond to an active shooter in schools. This direction was a departure from the previously held stance that lockdowns were the preferred default reaction.¹⁰⁸

1. Positives of Run

The research provides numerous examples of successful outcomes of Run implementation. The tragedy at Sandy Hook Elementary demonstrated the potential success of evacuating. Of the survivors, nine of the children had escaped the attacked rooms.¹⁰⁹ AARs from Sandy Hook established that the nine students were able to take advantage of an opportunity when the shooter stopped firing, while either reloading or correcting a weapon malfunction, to make an options-based decision to escape.¹¹⁰ Many of the other survivors were able to escape the school, find safe shelter, and notify police.¹¹¹

The 1999 Columbine massacre demonstrated the positive outcomes of running. The Columbine AAR describes many surviving students who fled the school once the shooting started. Specifically, many students, teachers, and staff were able to escape through the cafeteria or upstairs to the second level of the school.¹¹² When the students witnessed the actions occurring outside, they began to hide under cafeteria tables.¹¹³ According to the AAR, teacher Dave Sanders advised students in the cafeteria to flee the area, potentially saving many lives.¹¹⁴ As the shooting continued at Columbine, students

¹⁰⁸ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 64.

¹⁰⁹ Sedensky III, *Report of the State's Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012*, 10.

¹¹⁰ Jackson et al., *Final Report of the Sandy Hook Advisory Commission*, 12.

¹¹¹ Sedensky III, *Report of the State's Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012*, 11.

¹¹² Erickson, *The Report of Governor Bill Owens': Columbine Review Commission*, ii.

¹¹³ *Ibid.*, 27.

¹¹⁴ *Ibid.*, 27–28.

were able to escape as the shooters moved through different areas.¹¹⁵ Again, this example demonstrated the natural inclination to options-based, nonlinear response strategies.

Another successful case example of evacuation is the 2009 Hampton University shooting in Hampton, Virginia.¹¹⁶ The Harkness Hall shooting ended due to the quick thinking of a dormitory manager, who activated the hall's fire alarm, which in turn, evacuated the building.¹¹⁷

Despite having limited direct examples of the positives of Run, it could be concluded that anyone who escaped an active shooter situation was a success. While not always documented or recorded, the sheer survivability reveals the value of this strategy. The clear benefit and survivability support the value of evacuation being the number one response plan.

2. Negatives of Run

Negative examples or characteristics of Run also appear in the research. The USAF states that all employees should be trained in evacuation procedures and have the routes pre-identified.¹¹⁸ Unfortunately, pre-existing evacuation plans, whether fire related or not, can prove to be problematic under active shooter conditions. While training in advance on these routes has great value for specific scenarios, escapees can find themselves in a high-risk position if a shooter cuts off routes. In the 2015 document, *Planning and Response to an Active Shooter*, the Interagency Security Committee discusses how pre-established evacuation routes may be inaccessible in an active shooter

¹¹⁵ Erickson, *The Report of Governor Bill Owens': Columbine Review Commission*, 33.

¹¹⁶ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 31.

¹¹⁷ Ibid.

¹¹⁸ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 5-1.

scenario or put people in a higher risk position.¹¹⁹ By recognizing evacuation routes having specific applicability, (i.e., fire, natural disaster event, etc.), teachers must focus on the elements of the routes to be navigated versus the routes themselves. When faced with an active shooter event, teachers and school staff should not lock themselves into a specific route. They need to stay adaptable and take the route that provides the safest and timeliest escape.

The AARs of Columbine discuss concern over the contradictions of the practice of evacuating. Specifically, they discuss the possibility that the students shot while hiding under tables might equally have met their fate while escaping in the hallway.¹²⁰ After directing students to evacuate the cafeteria, potentially saving many lives, Dave Sanders was shot moving through the hallways attempting to warn others.¹²¹ The Columbine AARs also describe scenarios where students were shot at and wounded as they attempted to flee.¹²² Unfortunately, the what-if scenarios confirm the idea that no one single answer exists to the question.

The Columbine AARs also discuss the plans originally set forth by the shooters, Dylan Klebold and Eric Harris. In their initial plan, an explosion was intended to kill those in the immediate vicinity, as well as trigger an evacuation.¹²³ The shooters then planned to shoot school staff and students as they escaped from the area of the

¹¹⁹ Interagency Security Committee, *Planning and Response to an Active Shooter: An Interagency Security Committee Policy and Best Practices Guide* (Washington, DC: Interagency Security Committee, 2015), 20, <https://www.dhs.gov/sites/default/files/publications/isc-planning-response-active-shooter-guide-non-fouo-nov-2015-508.pdf>.

¹²⁰ Lawrence Fennelly, "Lessons Learned," in *ASIS International School Safety and Security Council*, ed. Robin Hattersley (Alexandria, VA: ASIS International School Safety and Security Council, 2016), 20, https://kiernan.co/sites/default/files/ASIS%20School%20Safety%20%26%20Security%20Council%2C%20Active_Shooter_Open%20%282015%29.pdf.

¹²¹ Erickson, *The Report of Governor Bill Owens': Columbine Review Commission*, 29.

¹²² *Ibid.*, 27.

¹²³ *Ibid.*, 25.

explosion.¹²⁴ Klebold and Harris also staged their vehicles to ensnare escapees in their crossfire.¹²⁵

In a white paper compiled by ASIS International, various subject-matter experts discussed the positives and negatives of different active shooter response strategies. Specifically, they examine the difficulties of keeping children controlled and quiet along an evacuation route.¹²⁶ Moving children becomes increasingly more complicated with the potential of an active shooter being on the path of an escape route.¹²⁷ Paul Timm, president of RETA Security, contends that ample opportunities are available to lockdown school children in secure locations and minimize the risk exposure of attempting escape.¹²⁸ Additionally, a 2014 report provided by the National Association of School Psychologists, in conjunction with the National Association of School Resource Officers, titled *Best Practice Considerations for Schools in Active Shooter and Other Armed Assailant Drills* describes other negative potentials of escaping an area. Again, it includes running into a path of danger, but adds exposure to victims, and potentially trampling each other in an attempt to evacuate.¹²⁹

Described in Kelly's 2012 NYPD report, two additional case studies demonstrate potentially negative characteristics of escape. In August 2010, Thomas Cowan reportedly asked for the location of the fire alarm at Sullivan Central High School in Blountville, Tennessee.¹³⁰ Cowan's reported intent was to activate the fire alarm to lure students into hallways as they evacuated to provide targets for him in the firing lanes.¹³¹ The second case in Kelly's report occurred at Westside Middle School in Jonesboro, Arkansas.¹³² In

¹²⁴ Ibid.

¹²⁵ Ibid., 26.

¹²⁶ Spadanuta, "Appendix C: The Best Defense," 54.

¹²⁷ Ibid.

¹²⁸ Spadanuta, "Appendix C: The Best Defense," 54.

¹²⁹ National Association of School Psychologists and National Association of School Resource Officers, *Best Practice Considerations for Schools in Active Shooter and Other Armed Assailant Drills*, 5.

¹³⁰ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 97.

¹³¹ Ibid.

¹³² Ibid., 123.

March 1998, two students shot at classmates and teachers after luring them out of the building by activating the fire alarm.¹³³ These examples enumerate the risks associated with moving from secure locations into potentially more vulnerable areas. While fire alarms should not be assumed as false, the examples provided emphasize the value in teachers and staff not making assumptions about situations. Although teachers will implement standard evacuation procedures and take pre-determined routes in case of fire alarm activation, they must maintain heightened situational awareness to avoid being drawn into a shooting lane.

3. Best Practices of Run

Consistent characteristics in the research relate to the best practices of Run. ASIS International, a recognized authority in the field of security, provides various collections of best practices from experts in the active shooter field. The 2016 ASIS School Safety and Security Council active shooter white paper describes the most recent best practice compilations. Specifically, they list Run features as:

- “Find a path and attempt to evacuate
- Evacuate whether others agree or not
- Leave your belongings
- Help others Evacuate
- Prevent others from entering
- Call 911”¹³⁴

The document continues to discuss the untethered approach that evacuation should take. ASIS advises the need to escape in “any way possible” should the situation

¹³³ Ibid.

¹³⁴ Jason T. Destein, “Introduction to Active Shooter Programs,” in *Active Shooter* (Alexandria, VA: ASIS International School Safety and Security Council, 2016), 1.

allow it, preferably by running.¹³⁵ The document's subject matter experts discuss the value of taking any means necessary, including breaking windows, to create student escape routes.¹³⁶ They also recognize the potential that a previously secured area can become less safe and require the potential victim to escape.¹³⁷ The *Final Report of the Sandy Hook Advisory Commission* also described the potential use of windows for escape.¹³⁸ That report goes as far to recommend construction standards for new builds and remodels.¹³⁹

The 2012 NYPD report discusses recommendations for evacuating as well. While the majority of the information is consistent with other sources, one area is contradictory to the overall consensus of research. Presumably adapted from the 2008 version of DHS *Active Shooter: How to Respond*, the NYPD report advises evacuees to “visualize their entire escape route” before beginning to move.¹⁴⁰ As seen in other areas of the research, this approach becomes problematic if the route previously committed to or visualized becomes inaccessible or puts the evacuee at a higher risk.

Again, the U.S. Department of Education guide provides thorough recommendations for escape. Specifically, they list:

- “Leave personal belongings behind;
- Visualize possible escape routes, including physically accessible routes for students and staff with disabilities as well as persons with access and functional needs;
- Avoid escalators and elevators;

¹³⁵ Ibid., 5.

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Jackson et al., “*Final Report of the Sandy Hook Advisory Commission*,” 54.

¹³⁹ Ibid.

¹⁴⁰ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 3; U.S. Department of Homeland Security, *Active Shooter: How to Respond*, 4.

- Take others with them, but not to stay behind because others will not go;
- Call 911 when safe to do so; and
- Let a responsible adult know where they are.”¹⁴¹

Although the directions regarding visualizing routes may seem consistent between the NYPD report and the Department of Education’s guide, slight variances are evident. As opposed to the visualization of an entire path (NYPD), the Department of Education prompts teachers and students to visualize possible escape routes, and emphasize the importance of options. Additionally, they extend the direction to accommodate the consideration of what routes are even physically possible based on the capabilities or restrictions of the population attempting evacuation.¹⁴² This direction provides a perfect balance between planning and reaction. By visualizing different routes, the escapees are building a system of possibilities should they encounter any inputs requiring them to alter their plans. The planning aspect also prevents evacuees from running off with no direction or guidance. Additionally, the flexibility avoids the risk of delaying response and the potential decrease of adaptive thinking.

4. Summary of Run as a Response Strategy

Statistically, Run is a challenging response strategy to assess. The data suggest that people putting as much distance as possible between themselves and their attacker when safely feasible has obvious benefits. From an after-action standpoint, examples of both positive and negative outcomes resulted when Run was applied. The positives appear to outweigh the negatives. Based on the information, the position that the U.S. Department of Education took making *evacuate* the number one priority in active shooter

¹⁴¹ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 65.

¹⁴² Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 65.

response makes sense.¹⁴³ The key, as discussed in subsequent chapters, is to assess the scenario strategically to determine the appropriate time and details of escaping.

The status quo direction of Run oversimplifies a complex situation. As seen in the examples, evacuating can have both positive and negative outcomes. As discussed in greater depth in the following chapters, different tactics and tactical decision-making tools can be applied to running. It is critical to maintain situational awareness at all times as teachers move through their school day. For example, teachers and school staff should be constantly analyzing where the nearest two exits are. They should identify a primary and secondary option. Additionally, teachers and school staff should work to familiarize themselves on cover and concealment and should work to make noticing it second nature. Purposeful, short burst movements, when faced with a nearby threat, can dramatically decrease casualty rates. Additionally, when a threat is further away, a well-executed escape can provide distance from the shooter that will likely increase potential survival. Regardless of distance, if escape is an option, it should always be prioritized.

D. HIDE AS A RESPONSE STRATEGY

Schools have historically implemented lockdowns as the primary response to threatening situations.¹⁴⁴ Many schools are now implementing more adaptive strategies, such as Run, Hide, Fight.¹⁴⁵ The Hide portion of the Run, Hide, Fight active shooter response strategy is the most discussed and implemented. Packaged under terms, such as lockdown, secure in place, and isolate, hiding is standard amongst many school systems based on its simplicity, relative advantages, and a level of comfort associated with familiar surroundings. Lockdown is the most commonly used terminology utilized in schools related to the practice.¹⁴⁶

¹⁴³ Ibid., 64.

¹⁴⁴ National Association of School Psychologists and National Association of School Resource Officers, *Best Practice Considerations for Schools in Active Shooter and Other Armed Assailant Drills*, 4.

¹⁴⁵ Ibid., 1.

¹⁴⁶ Destein, "Introduction to Active Shooter Programs," 3.

Terminology makes a significant difference in defining expectations of action. Hiding is the practice of using concealment to avoid detection by a threat. Lockdown, on the other hand, describes a system in which physical barriers, locked doors, for example, are utilized to prevent access from a threat. Secure-in-place, a commonly misused term, represents a strategy of safely maintaining an area to avoid exposures from outside threats, usually natural. Although they appear similar on the surface, secure-in-place is a much more passive strategy intended to last for an extended period. Lockdown, on the other hand, is a shorter-term strategy, and ideally both active and defensive. Hiding is similar to lockdown with or without the aid of physical barrier mechanisms.

Lockdown is the most commonly seen active shooter response strategy for elementary schools. The *Guide for Developing High-Quality School Emergency Operations Plans*, a collaborative government guidance document, describes the purpose of lockdown as, “to quickly ensure all school staff, students, and visitors are secured in the rooms away from immediate danger.”¹⁴⁷ Despite offering lockdown as an option, the guide recommends evacuation as the primary mitigation strategy.¹⁴⁸

The origin of lockdown is unclear. Some experts trace it to the Los Angeles Unified School District’s response to riots in the 1960s.¹⁴⁹ Lockdown continued as an appropriate strategy for that same area, which saw an increase in drive-by shootings and violent threats outside school perimeters.¹⁵⁰ It is apparent from the literature that lockdowns were designed and developed to address threats from the exterior of the school grounds.¹⁵¹ In active shooter events, it becomes extremely problematic, as the shooter may have already accessed the interior of the school.

¹⁴⁷ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 29.

¹⁴⁸ Ibid., 64; Hendry Jr., *The Origin of Lockdown: Enduring Questions and One Man’s Journey to Discover Where Lockdown Came from*, 7.

¹⁴⁹ Hendry Jr., *The Origin of Lockdown: Enduring Questions and One Man’s Journey to Discover Where Lockdown Came from*, 6.

¹⁵⁰ Ibid.

¹⁵¹ Ibid., 7.

Modern mitigation strategies challenge the wisdom of lockdown as the primary strategy in active shooter events.¹⁵² However, Kenneth Trump, president of National School Safety and Security Services, argues that the emotional response following the Sandy Hook shooting has caused those in the industry to want to move away from a practice that has proven successful in past scenarios.¹⁵³ While acknowledging the benefits of evacuation, the potential safety of lockdown and recognizing that it may be the only option, critics also demonstrate concern in leaving students defenseless while simply hiding without the protection of security barriers.¹⁵⁴

1. Positives of Hide

The Safe School Initiative Committee (SSIC) report following the Sandy Hook shooting stated, “The testimony and other evidence presented to the Commission reveals that there has never been an event in which an active shooter breached a locked classroom door.”¹⁵⁵ This statement demonstrates the significant value of lockdown when done correctly and with the appropriate factors in place. Implementation of hiding and lockdown has a litany of success stories. Numerous case studies and AARs describe the achievements associated with implementing the strategy. For example, in one AAR from Sandy Hook, staff hid under their desks in the front office of the school, near where the shooter Adam Lanza first made entry.¹⁵⁶ The shooter reportedly entered the office area, apparently did not see anyone, and moved back into the hallway.¹⁵⁷ Throughout the school, many students successfully hid from the shooter. Students hid in school restrooms, as well as other areas throughout the school.¹⁵⁸

¹⁵² Spadanuta, “Appendix C: The Best Defense,” 53.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Jackson et al., “*Final Report of the Sandy Hook Advisory Commission*,” 32.

¹⁵⁶ Sedensky III, *Report of the State’s Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012*, 2, 10, 12.

¹⁵⁷ Ibid., 2.

¹⁵⁸ Ibid., 10, 11.

Another positive result occurred in the 1999 shooting at Notus Junior-Senior High School in Idaho.¹⁵⁹ The AAR describes students barricading themselves in classrooms when they heard shots.¹⁶⁰ These actions attributed to the zero casualty count of this incident.¹⁶¹

2. Negatives of Hide

Unfortunately, examples of hiding have also led to harmful outcomes. Both in Sandy Hook and Columbine, two of the most significant active shooter events provide examples of the disadvantages of hiding. In Sandy Hook, the shooter gained access to the interior of the school.¹⁶² In two classrooms, 20 students were murdered (15 and five, respectively).¹⁶³ The majority of the victims were all located, hiding, in their classroom.¹⁶⁴ Of the nine students who ran from classroom, 10 survived the event while the five students and two teachers who remained in the classroom died.¹⁶⁵

In 1985, in the Portland, Connecticut shooting at the Portland Junior High School, the perpetrator walked the halls looking for victims.¹⁶⁶ After killing a custodian and wounding two other staff members, Floyd Warmesley took a student hostage.¹⁶⁷ Warmesley then reportedly wandered the halls with the student hostage for 30 minutes.¹⁶⁸

¹⁵⁹ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 122.

¹⁶⁰ Ibid.

¹⁶¹ Ibid.

¹⁶² Sedensky III, *Report of the State's Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012*.

¹⁶³ Ibid.; Vogel, Horwitz, and Fahrenthold, "Sandy Hook Elementary Shooting Leaves 28 Dead, Law Enforcement Sources Say."

¹⁶⁴ Sedensky III, *Report of the State's Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012*.

¹⁶⁵ Ibid.

¹⁶⁶ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 138.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

The now-infamous Columbine library was an additional example of problems associated with hiding. Dylan Klebold and Eric Harris entered the school library approximately 15 minutes into their shooting spree.¹⁶⁹ Students in the library had been directed by staff to hide under the tables when the shooting started.¹⁷⁰ In seven and a half minutes, the two shooters worked through the library, killing 10 students out of the 60 total students and staff, and injuring many others.¹⁷¹ Witnesses reported that the two shooters seemed to have no exact method as to whom they shot, which they left alone, and what prompted them to discontinue the slaughter.¹⁷² In this case, it is unclear whether having hidden in the library was overall a successful strategy. However, had students and staff taken advantage of the 15-minute gap between the start of the shooting and when the two shooters entered the library, many more might have survived. By applying an options-based approach, students and staff could have either fled the area to safety or confront the shooters in an attempt to overwhelm them. Professor Amy Klinger from Ashland University in Ohio poses this (rhetorical) question: if you know that an event is taking place at one end of a school, and you are at the other end of the school, why would you wait to see if the threat reaches you rather than evacuating?¹⁷³ To address this scenario, Klinger advocates for options-based approaches to active shooter events in schools. In the trainings she provides, the emphasis is placed on showing teachers that multiple options exist to address these threats. The focus of the training is to illustrate that no single “right way” of doing things exists. Instead, the value is placed on teachers recognizing the different options available to them.

Structural design challenges to implementing lockdowns in schools do occur. Experts in the field of school security discuss the issues associated with attempting to lockdown a classroom that has glass in or around doors or locks if they are not easy to

¹⁶⁹ Erickson, *The Report of Governor Bill Owens’: Columbine Review Commission*, ii.

¹⁷⁰ *Ibid.*, 29.

¹⁷¹ *Ibid.*, iii.

¹⁷² *Ibid.*, 30.

¹⁷³ Spadanuta, “Appendix C: The Best Defense,” 54.

use in an emergency.¹⁷⁴ Depending on the configuration, glass can be broken to allow access to the locking mechanism; teachers may have difficulty in engaging the lock during stressful times.¹⁷⁵ Another significant drawback to lockdown or other similar linear response strategies is the familiarity of the practice to the shooter. Many times, the shooter is familiar with the facility and can anticipate the practices associated with threat response.¹⁷⁶

Lockdowns have obvious strategic limitations. Once committed to an area perceived as secure, opportunities may be limited to reevaluate a response strategy or make new decisions. To put it bluntly, once a commitment to hiding is made, victims become “sitting ducks,” at the mercy of chance. Structural integrity and design of the building and classrooms become significant in their ability to protect occupants from shooters.¹⁷⁷

3. Best Practices of Hide

The SSIC report following Sandy Hook made two critical recommendations to assist in the implementation of lockdown in K-12 schools. The recommendations are as follows:

- **Recommendation No. 1:** “The SSIC Report includes a standard requiring classroom and other safe-haven areas to have doors that can be locked from the inside. The Commission cannot emphasize enough the importance of this recommendation. *The testimony and other evidence presented to the Commission reveals that there has never been an event in which an active shooter breached a locked classroom door.* Accordingly, the Commission reiterates its

¹⁷⁴ Jim McLain, “Buying Time—Realistic Hardening of the Target at the Classroom Door,” in *ASIS International School Safety and Security Council*, ed. Robin Hattersley (Alexandria, VA: ASIS International School Safety and Security Council, 2016), 30.

¹⁷⁵ Ibid.

¹⁷⁶ Hendry Jr., *The Origin of Lockdown: Enduring Questions and One Man’s Journey to Discover Where Lockdown Came from*, 4.

¹⁷⁷ Hendry Jr., *The Origin of Lockdown: Enduring Questions and One Man’s Journey to Discover Where Lockdown Came from*, 6.

recommendation that all classrooms in K-12 schools should be equipped with locked doors that can be locked from the inside by the classroom teacher *or substitute*.

- **Recommendation No. 2:** The Commission also reiterates its recommendation that all exterior doors in K-12 schools be equipped with hardware capable of implementing a full perimeter lockdown.”¹⁷⁸

These recommendations provide relatively straightforward changes that institutions can make to provide for better success in potential lockdown scenarios.

The *Guide for Developing High-Quality School Emergency Operations Plans* also provides a best practices list for implementing both lockdown and shelter-in-place. As part of the planning process, the guide stipulates that the assessment team should consider:

- “How to lock all exterior doors, and when it may or may not be safe to do so.
- How particular classroom and building characteristics (i.e., windows, doors) impact possible lockdown courses of action (COA).
- What to do when a threat materializes inside the school.
- When to use the different variations of a lockdown (e.g., when outside activities are curtailed, doors are locked, and visitors are closely monitored, but all other school activities continue as normal).”¹⁷⁹

¹⁷⁸ Jackson et al., “*Final Report of the Sandy Hook Advisory Commission*,” 32–33.

¹⁷⁹ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 29.

Unique to the practice of hiding, the guide provides the following list of best practices: “Students and staff should be trained to hide in a location where the walls might be thicker and have fewer windows. In addition:

- “Lock the doors;
- Barricade the doors with heavy furniture;
- Close and lock windows and close blinds or cover windows;
- Turn off lights;
- Silence all electronic devices;
- Remain silent;
- 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);
- Use strategies to silently communicate with first responders if possible, for example, in rooms with exterior windows make signs to silently signal law enforcement officers and emergency responders to indicate the status of the room’s occupants; and
- Remain in place until given an all clear by identifiable law enforcement officers.”¹⁸⁰

Other best practice considerations are to establish plans specifically designed for those who cannot Hide or evacuate.¹⁸¹ Special populations require special planning

¹⁸⁰ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 65.

¹⁸¹ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*.

considerations. Additionally, plans should include variables, such as teachers not being in their classroom when a lockdown order is given.¹⁸²

4. Summary of Hide as a Response Strategy

It is unrealistic to assume or make the correlation that more victims could have survived if they had approached the situation differently. The outcomes are highly influenced based on many variables involved. A few of the many variables that impact a potential victim's response options and the likelihood of survival include time, distance from the shooter, exits, and escape routes.

Again, the *Guide for Developing High-Quality School Emergency Operations Plans* provides that evacuation should be the number one priority in response to an active shooter threat when safely feasible.¹⁸³ However, the guide also provides best practices that can significantly increase the likelihood of survival if faced with hiding or locking down. Takeaways from the research demonstrate that locking down can be successful when done correctly and with the right supporting factors (door construction, locking mechanisms, and classroom layouts for example). The key is to delineate the difference between hiding, lockdown, and sheltering-in-place. Again, no one-size-fits-all approach exists.

If Hide or Lockdown is determined to be the best option given the scenario, it is critical that teachers and staff actively pursue self-protection. Practicing passive lockdown procedures can lull teachers and school staff into a false sense of security. Asking teachers to put themselves in the high-risk, high-stress mindset, and commit to aggressive defensive tactics, will change the way staff approach hiding and locking down. Subsequent chapters go into more depth regarding the tactics and tactical decision-making tools that can be applied to the situation. Having students sit on the floor and remain quiet is simply not enough when faced with a real threat. Doors need to be locked and barricaded. Children need to be hidden. All access paths need to be made as

¹⁸² Hendry Jr., *The Origin of Lockdown: Enduring Questions and One Man's Journey to Discover Where Lockdown Came from*, 7.

¹⁸³ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*.

complicated as possible for the shooter to navigate. In addition, makeshift weapons should be identified early for deployment as a last resort.

E. FIGHT AS A RESPONSE STRATEGY

The Fight portion of Run, Hide, Fight is the most highly debated element of mitigation strategy for schools. When dealing with elementary age children, many feel that it is an unreasonable expectation to ask kids to Fight attackers. Some psychologists and school administrators challenge the Fight aspect of Run, Hide, Fight,¹⁸⁴ arguing that it is unrealistic and inefficient to confront the shooter physically. Many reasons for this critique have been stated, such as age, knowledge base, and physical capabilities of the threatened party. Since all situations reveal themselves differently, and are full of variables, these factors must be discussed when considering the last phase of the protocol. Having school-aged children confront the shooter, for example, becomes more problematic the lower the grade level.¹⁸⁵ Additionally, access to weapons or objects potentially used as weapons remains a factor for consideration. Critics also contend that even the training can be traumatic to participants.¹⁸⁶ Proponents of Fight believe, to the contrary, that when no other option exists, kids may simply have to Fight.¹⁸⁷

When discussing Fight, it is important to recognize that the term has many variables. Fight is recognized as a primary component of the Fight or Flight response. This natural instinct prompts the threatened to attack the attacker physically. Another version is to confront an attacker; approach and attempt to mitigate the situation without physical engagement. Approaching an attacker has distinct risk factors associated with it but has proved a successful strategy in some cases, as described in the positive examples

¹⁸⁴ Albrecht, "The Truth behind the Run-Hide-Fight Debate."

¹⁸⁵ Kennedy-Paine and Crepeau-Hobson, "FBI Study of Active Shooter Incidents: Implications for School Psychologists," 22–23.

¹⁸⁶ Dan Frosch, "'Active Shooter' Drills Spark Raft of Legal Complaints; Critics Say Simulation Exercises Can Traumatize Those Taking Part," *Wall Street Journal*, September 4, 2014, <http://search.proquest.com.libproxy.nps.edu/docview/1559961268/abstract/98531B474D944CBPQ/28>.

¹⁸⁷ Clark, "Run. Hide. Fight.: Effective Public Policy for Individual Safety in Response to Active Shooting Incidents."

of Fight in this chapter. The ability to adapt to the given situation to determine the appropriate outcome lends itself to supporting the idea of options-based approaches.

According to a 2014 study reviewing active shooter events from 2000 to 2013, 66.9 percent of events end before police intervention.¹⁸⁸ The shooters either were stopped by a citizen, or otherwise discontinued their attack (fled, committed suicide, or killed by someone on-scene).¹⁸⁹ Breaking it down by school type, the report identified seven of 10 high school shooters being detained by school staff, three held by educators in middle schools, and three apprehended at elementary schools. The decision to confront an attacker, either verbally or physically, is extremely situational. Split-second decisions need to be made that include only available facts at that time. For example, could the shooter be easily overpowered, do they seem unsure of themselves, are they reloading, or is a school staff member at a tactically advantageous position to incapacitate the attacker? Statistically, the following case studies demonstrate that potential victims can directly impact the outcome of the event (Figure 5).¹⁹⁰ As Blair et al. stated:

In 39% of the attacks that were stopped before the police arrived, the victims took action to stop the shooter themselves either by physically subduing the attacker (81%) or by shooting him with their own personal weapons (19%). These data clearly show that it is possible to defend yourself successfully in these events even if you are unarmed.¹⁹¹

¹⁸⁸ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 9.

¹⁸⁹ Ibid.

¹⁹⁰ Blair et al., *Active Shooter Events and Response*, 197.

¹⁹¹ Blair et al., *Active Shooter Events and Response*, 197.

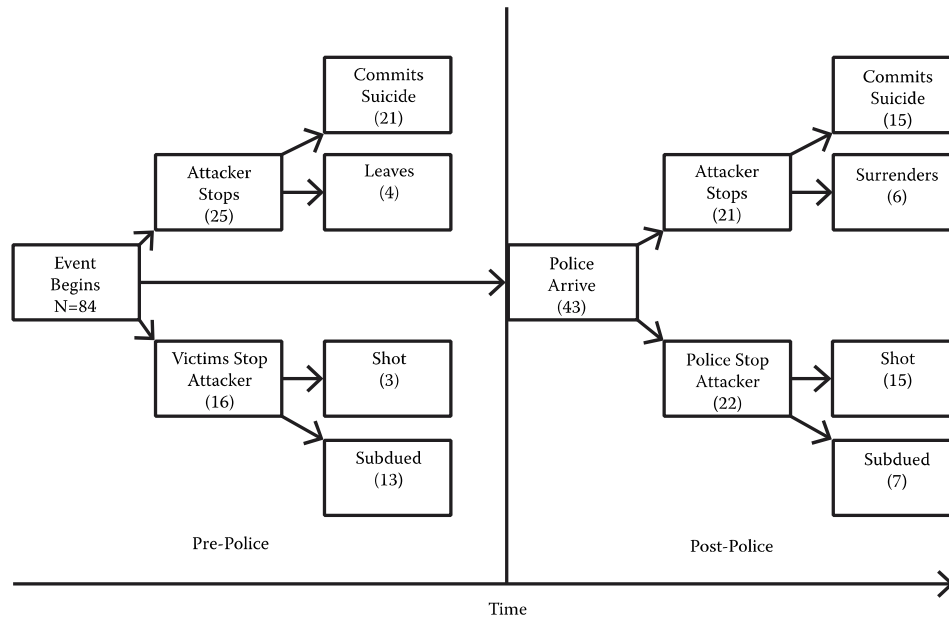


Figure 5. Resolution of Active Shooter Events in the United States (2000–2010)¹⁹²

More recently, a 2016 study by Schweit reviewing active shooter events in 2014 and 2015 identified six scenarios out of 40 in which citizen intervention ended the situation.¹⁹³ Of the six incidents Schweit describes as ending with citizen involvement, two involved people restraining the shooters after citizens with permitted firearms fired upon them.¹⁹⁴ Two more incidents involved physically restraining shooters until the arrival of law enforcement.¹⁹⁵ The remaining two events were non-physical confrontations where one shooter complied with an order from a teacher to put the gun down.¹⁹⁶ The other student shooter committed suicide after being confronted by a teacher.¹⁹⁷ The U.S. Department of Education’s *Guide for Developing High-Quality School Emergency Operations Plans* describes 16 events, out of 41, in which victims

¹⁹² Source: Ibid., 62.

¹⁹³ Schweit, *Active Shooter Incidents in the United States in 2014 and 2015*, 2.

¹⁹⁴ Ibid., 3.

¹⁹⁵ Ibid.

¹⁹⁶ Schweit, *Active Shooter Incidents in the United States in 2014 and 2015*, 3.

¹⁹⁷ Ibid.

physically halted an attack before law enforcement's arrival.¹⁹⁸ Of the 16 events described, in 13 cases, the potential victims physically "subdued" the attacker.¹⁹⁹ Blair and Schweit's 2014 report described 65 out of 160 incidents in which events ended due to citizen involvement or suicide, and 21 concluded due to the intervention of unarmed citizens.²⁰⁰ Specifically, 11 of the 21 events included the engagement of unarmed school staff, teachers, and students.²⁰¹

These statistics demonstrate the likelihood that events will end before the arrival of law enforcement. The examples also point to the reality that many times, confrontations (both physical and verbal) lead to the end of the threat. The U.S. Department of Education's guide admits that although the idea of confronting a shooter may be difficult to explain and understand, early mitigation of an event may save many lives.²⁰² Although potentially beneficial, the research again demonstrates both positive and negative examples of the implementation of Fight (or confrontation).

1. Positives of Fight

The 2004 Columbia High School (New York) shooting ended when school staff restrained the shooter after he wounded one person.²⁰³ After killing one staff member and wounding two others in 2005, Campbell County Comprehensive High School (Tennessee) students and administrators subdued the shooter.²⁰⁴ A teacher restrained a 14-year-old shooter at Pine Middle School in Nevada after he wounded two people.²⁰⁵ In

¹⁹⁸ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 65–66.

¹⁹⁹ *Ibid.*, 66.

²⁰⁰ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 11.

²⁰¹ *Ibid.*

²⁰² Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 66.

²⁰³ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 24.

²⁰⁴ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 26.

²⁰⁵ *Ibid.*

2006, at Weston High School (Wisconsin), staff restrained the shooter after he killed one person.²⁰⁶ Another shooting in 2006 occurred at Memorial Middle School (Missouri) where staff escorted the shooter out of the building after his rifle jammed.²⁰⁷ School staff tackled and restrained an adult shooter in 2010 after he opened fire, wounding two, at Deer Creek Middle School (Colorado).²⁰⁸ Showing high situational awareness, construction workers near Kelly Elementary School (California) tackled a shooter when he stopped to reload after he had wounded two in 2010.²⁰⁹ School staff restrained a 2012 Perry High School (Maryland) shooter after he wounded one classmate.²¹⁰ In 2013, a 16-year-old student began firing at Taft Union High School in California.²¹¹ He stopped shooting, after wounding two people, when a staff member persuaded him to halt.²¹² A non-physical confrontation concluded the 2014 Berrendo Middle School (New Mexico) after the shooter was ordered to drop his gun by a school staff member.²¹³ The shooter had already wounded three people but complied with the order. In 1999, Fort Gibson Middle School (Oklahoma) staff restrained a gunman after wounding four in 1999.²¹⁴ Also in 1999, Heritage High School (Georgia) staff disarmed a high school shooter.²¹⁵ Two Heath High School (Kentucky) students persuaded a shooter in 1997 to put down his gun after he had killed three and wounded five others.²¹⁶ After a student killed three, wounded one, and held his class hostage for 10 minutes, a school staff member restrained a Frontier Middle School (Washington) shooter.²¹⁷

²⁰⁶ Ibid., 27.

²⁰⁷ Ibid.

²⁰⁸ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 95.

²⁰⁹ Ibid., 99.

²¹⁰ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 39.

²¹¹ Ibid., 41.

²¹² Ibid.

²¹³ Schweit, *Active Shooter Incidents in the United States in 2014 and 2015*, 6.

²¹⁴ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 120.

²¹⁵ Ibid.

²¹⁶ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 124.

²¹⁷ Ibid., 127.

2. Negatives of Fight

Negative examples of situations when shooters were confronted or fought are not numerous. In 2013, Sparks Middle School (Nevada) was the scene of an active shooter.²¹⁸ According to the 2014 Blair and Schweit report, the 12-year-old student shot a teacher when the teacher confronted the shooter.²¹⁹ An international example occurred in 2003 at a school in Bavaria.²²⁰ The student shot a teacher who had tried to “wrestle” the gun away.²²¹ An example previously described as positive had negative outcomes as well. In 2006 at Weston High School in Wisconsin, a 15-year-old student opened fire; the gun was “wrestled” away from him by a custodial worker.²²² The shooter then pulled out a second gun and killed the school’s principal with it.²²³ The Blair and Schweit report describe that school staff then detained the shooter while they awaited the police department.²²⁴ This example demonstrates the fluidity of these events showing how difficult they are to mitigate or control.

Critics maintain that teaching elementary age students to Fight is dangerous and unnecessary both because of physical disadvantage (by age and size), and the potential trauma of the training outweighing the likelihood of an attack.²²⁵ Most of the examples indeed show teachers and school staff who confronted shooters; no known examples of elementary school-age students facing down shooters are available. Kenneth Trump, President of National School Safety and Security Services, thinks the inclusion of *counter* or Fight in elementary school student training is a response to the fear induced by the Sandy Hook Elementary student.²²⁶ Trump does not feel it is the “best way” to prepare

²¹⁸ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 42.

²¹⁹ Ibid.

²²⁰ Rider, “Teachers’ Perceptions of Their Ability to Respond to an Active Shooter Incident,” 88.

²²¹ Ibid.

²²² Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 107.

²²³ Ibid.

²²⁴ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 27.

²²⁵ Destein, “Introduction to Active Shooter Programs,” 3.

²²⁶ Spadanuta, “Appendix C: The Best Defense,” 53, 55.

students for an active shooter event.²²⁷ Paul Timm, RETA Security President, agrees that teaching fighting or confrontation to elementary students “might not be the best approach” especially if they have other options to them, such as secure classrooms they can Hide in and lockdown.²²⁸ Amy Klinger from Ashland University (Ohio) takes a different view of the potential setbacks of teaching elementary students to Fight.²²⁹ She points out the enormous potential for pushback and negativity by parents, administrators, and the community.²³⁰ Pushback was the case in Burleson, Texas when students were trained to Fight would-be shooters.²³¹ After the negative public reaction, the school board reversed its position and removed that portion from its procedures.²³² Klinger also contends that when teaching Fight, the focus seems to center on that portion and other options are overlooked.²³³

The complexities described in teaching elementary age children to Fight emphasize the value in properly preparing teachers and school staff on defensive tactics and tactical decision-making. Without the ability to count on the physical swarming of students attempting to subdue an attacker, elementary school teachers must rely more on avoidance and evasion. They will have to outsmart and outmaneuver an attacker whenever possible. Again, when faced with no other option, they will simply have to employ any tactics available. While physically fighting an attacker may not be a preferred option, impeding progress by confronting an attacker from a distance may prove valuable. By maintaining composure in a stressful environment, teachers can outfit and direct their students to throw objects at attackers if they get through the door of a

²²⁷ Ibid., 55.

²²⁸ Ibid., 54–55.

²²⁹ Ibid., 55.

²³⁰ Ibid.

²³¹ Wike and Fraser, “School Shootings: Making Sense of the Senseless,” 165; Mike Von Fremd, “Texas School District Learning to Fight Back against School Gunmen,” ABC News, October 8, 2003, <http://abcnews.go.com/GMA/story?id=2580664&page=1>.

²³² Wike and Fraser, “School Shootings: Making Sense of the Senseless,” 165; Associated Press, “Burleson Changes Stance on Student Attack Training,” Dallas Morning News, October 25, 2006, <http://www.dallasnews.com/sharedcontent/dws/dn/latestnews/stories/102606dnmetburleson.736f1085.html>.

²³³ Spadanuta, “Appendix C: The Best Defense,” 55.

classroom. Klinger supports this practice in stating that she does limited training on Fight that mainly focuses on simple tactics, such as “throwing things and creating diversions.”²³⁴ At that point of an event, anything helps.

3. Best Practices of Fight

The best practices seen through the literature are insufficient when it comes to *fighting*. Based on the variables of the situation, combined with the unforeseen actions or intent of the assailant, instructions are brief. Due to unknown abilities of potential victims, the instructions also appear to be designed in a “do the best you can” approach.

Experts in the ASIS white paper provide general instructions when faced with an active shooter. The literature states, “If you do not have the ability to hide, then the last option is to:

Fight

- Attempt to incapacitate the shooter
- Act with physical aggression
- Improvise weapons
- Commit to your actions”²³⁵

As found in the Kelly NYPD report, the 2008 version of the DHS’s *Active Shooter: How to Respond* guidance document directs that potential victims “should attempt to disrupt and/or incapacitate the active shooter.”²³⁶ This guidance, however, is provided only when escape or shelter is not available.²³⁷ Specifically, the guide mentions “throwing objects, using aggressive force and yelling.”²³⁸

²³⁴ Spadanuta, “Appendix C: The Best Defense,” 55.

²³⁵ Destein, “Introduction to Active Shooter Programs,” 2.

²³⁶ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 3; U.S. Department of Homeland Security, *Active Shooter: How to Respond*, 5.

²³⁷ Kelly, *Active Shooter: Recommendations and Analysis for Risk Mitigation*, 3; U.S. Department of Homeland Security, *Active Shooter: How to Respond*, 5.

²³⁸ Ibid.

The *Guide for Developing High-Quality School Emergency Operations Plans* provides similar guidance. The U.S. Department of Education document states:

If neither running nor hiding is a safe option, as a last resort when confronted by the shooter, adults in immediate danger should consider trying to disrupt or incapacitate the shooter by using aggressive force and items in their environment, such as fire extinguishers, and chairs.²³⁹

4. Summary of Fight as a Response Strategy

As previously stated, many disagree with teaching students the Fight portion of Run, Hide, Fight. Others contend that when all else fails, it may be all they have left. Most experts do agree that Fight is a potential necessity for teachers to know how to defend themselves and their students appropriately. The benefit of the training leads to the promotion of options-based approaches while still adhering to past proven practices. Linda Watson, a Whirlaway Group LLC security consultant, states, “If you’re in a dire situation, you need to go into survival mode and do whatever you have to do to have a chance to live.”²⁴⁰ This message rings true in almost all the guiding documents on the subject.

Despite Fight typically being labeled as the last option of mitigating an active shooter event, it may end up being the first option depending on the variables of the encounter. For example, if a teacher is at the front office when a shooter enters and begins firing, physical confrontation may be the only option. As demonstrated in the research, these events are non-linear, and do not yield to linear response strategies. Situations have resulted in successful outcomes by someone simply attacking the shooter at the onset of an event, but no formula really exists for the exact situations where attack is warranted and prioritized. Typically, in these scenarios, instincts simply take over. It may end well or poorly, but doing nothing never ends well.

As shown through the research, fighting or confronting an active shooter can have mixed results. No doubt exists that the immediate mitigation of active shooter events by

²³⁹ Office of Elementary and Secondary Education and Office of Safe and Healthy Students, *Guide for Developing High-Quality School Emergency Operations Plans*, 65.

²⁴⁰ Spadanuta, “Appendix C: The Best Defense,” 55.

school administrators and others have saved many lives. Other scenarios have shown that the people attempting to confront the shooter became a victim themselves. It is hard to assess what would have happened had they not tried to intervene. The mixed responses when faced with a direct threat indeed speak to the *fight or flight* mentality that almost seems to come naturally to the potential victims. Despite concern about teachers and staff's willingness to confront a shooter, the research shows that they are willing to face an active shooter to protect their students. The desire to defend provides excellent support for enhancing the tactical decision-making capabilities of those entrusted to protect the youth.

As provided in the Run, Hide, Fight research findings, all three of the elements, plus lockdown, have definite advantages. Unfortunately, numerous examples of the protocol elements failing were also provided. Active shooter events are highly complex. Based on the variability of the events, no one size fits all solution exists. Run, Hide, Fight provides a solid foundation from which to build off of. The following chapters provide specific tactics and tactical decision-making tools that can be applied to the foundation of Run, Hide, Fight by elementary school teachers and staff. The goal of these findings is to provide specificity to the different elements of Run, Hide, Fight. By linking the practices, providing details about potential applicability, and training teachers and school staff on implementation, the goal is to increase the likelihood of survival in these incredibly challenging events.

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III. MENTAL PREPARATION FOR DEFENSIVE TACTICS AND TACTICAL DECISION-MAKING

Run, Hide, Fight has definite advantages and disadvantages. It is evident from the research that Run, Hide, Fight, and similar mechanisms, are not linear approaches.²⁴¹ It is necessary to be prepared to adapt on the fly and change strategies as different variables present themselves. By modifying thought processes and overall preparedness, potential victims have a potentially higher likelihood of survival. Mental preparation, both before and during an event, is critical in establishing the mindset necessary for survival.

Statistically, the majority of active shooter events end before the arrival of law enforcement.²⁴² The importance of this statistic is the recognition that regular citizens will have to make “life and death” decisions and be willing to adapt to all the possibilities presented.²⁴³ In 11 out of 21 incidents described by Blair and Schweit in 2014, “unarmed principals, teachers, other school staff, and students confronted the shooters to end the threat.”²⁴⁴ In 2016, in a study of active-shooter incidents in 2014 and 2015, Katherine Schweit reiterated:

The “active” aspect of the definition inherently implies that both law enforcement personnel and citizens have the potential to affect the outcome of the event based on their responses to the situation. The consistency of these incidents supports the paramount need for training and exercises for law enforcement, other first responders, and citizens alike.²⁴⁵

This chapter analyzes tactical mental preparation techniques to assist teachers and school staff on how to react when faced with an active shooter threat. Run, Hide, Fight is considered a best practice for response to active shooter events. Unfortunately, it fails to

²⁴¹ Spadanuta, “Appendix C: The Best Defense,” 53–56; Interagency Security Committee, *Planning and Response to an Active Shooter: An Interagency Security Committee Policy and Best Practices Guide*.

²⁴² Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*.

²⁴³ *Ibid.*, 8.

²⁴⁴ *Ibid.*, 21.

²⁴⁵ Schweit, *Active Shooter Incidents in the United States in 2014 and 2015*, 1.

recognize the mental preparedness and steps taken in advance of an event that may assist in increasing the likelihood of survival. By leveraging the advantages available to teachers and school staff, the goal is to win the challenge and survive. Having the appropriate mental attitude before and during an event is critical. By reviewing best practices of mental preparation used by law enforcement and the military, teachers and school staff can work to create the appropriate mindset and internal defense mechanisms to increase survival. Teachers and school staff must not prepare for or accept being a victim. They must prepare themselves for success, survival and accept nothing else.

A. WARRIOR MINDSET

With military personnel, self-defense and protection of their fellow soldiers is critical. Countless examples are available of heroic efforts made by soldiers to save their fellow soldiers. Similarly, teachers have proven their willingness to go to extreme measures to protect their students time and time again. History has shown that the willingness to protect exists. By providing defensive tactical decision-making skills, the intent of the research is to outfit teachers with mechanisms to make decisions to support their willingness to protect. While a warrior mindset may seem foreign in an educational environment, it is reflected in numerous cases in which teachers have paid the ultimate sacrifice in attempting to protect their students.

One of the most thorough guidance documents is the USAF *Tactics, Techniques, and Procedures* manual on active-shooter response and preparedness. Described in the introduction, the manual “is applicable to all theaters of operation.”²⁴⁶ Not only is it designed to assist soldiers in war zones, it also works for domestic Air Force personnel working in offices stateside. Based on this flexibility, it provides excellent guidance that can be applied to teachers and school staff as well.

One of the first recommendations in the manual is the emphasis to develop a “warrior mindset.”²⁴⁷ The warrior mindset is a mental state of mind that emphasizes

²⁴⁶ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, iii.

²⁴⁷ *Ibid.*, 1–1.

survivability over a flawless procedure. By implementing this mentality, the goal is to empower and inspire potential victims with the mindset that they WILL survive and will not let anything get in their way. The Air Force manual describes the warrior mindset as:

1.2.1 Warrior Mindset. The warrior mindset is more important than polished technique.

When faced with an attack, act immediately and escape. Do not let anything get in your way of survival or mission accomplishment.

1.2.1.1 Toughness. The uninhibited mental resolution to aggressively react to illegal violence with a fierce and violent defense.

1.2.1.2 Immediate Response. Respond immediately with the appropriate level of force. Stop the attack and escape or press forward with the mission. A warrior does not wait, as the advantage is the surprise of instant and direct offense.

1.2.1.3 Focus. Stay focused on your goal of survival and mission accomplishment. Be persistent and continue to respond if the first response is not effective. Commit to your goal of survival and let nothing get in your way.²⁴⁸

By training on, promoting, and implementing a warrior mindset, teachers and school staff have the ability to develop an enhanced level of confidence and comfort in the situation at hand.

The Air Force manual goes further to provide a multitude of recommendations. The document describes the necessity that those threatened need to be immediately focused and conscientious of not hesitating. The value of reacting and not waiting is stated numerous times throughout the document, and suggests that it can lead to increased survivability. One of the techniques described to assist in avoiding hesitation is to overcome the thought that “this could never happen to me.”²⁴⁹ Teachers and school staff should recognize that it is a possibility at any school in the world. While relative consistencies in shooter profiles are prevalent to a degree, the factors concerning the location of the event are extremely variable. These events occur in a broad-spectrum of

²⁴⁸ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 1–1.

²⁴⁹ *Ibid.*, 1–2.

location, type, time and socio-economic status. Additionally, as an extension to avoid hesitation, the manual describes the inappropriate belief potentially shared by airmen and school staff that someone will respond and mitigate the situation on their behalf.²⁵⁰ Statistically, this belief is shown not to be the reality. Emergency response will occur, but 66.9 percent of events end before the arrival of law enforcement.²⁵¹

A major component in being prepared to react appropriately in a stressful situation is to understand what happens physiologically to the body when faced with a threat. While every individual is different, basic known factors occur to the human body when confronted with an immediate danger. Controlled by the autonomic nervous system, the parasympathetic nervous system drives the human body's "fight or flight" response.²⁵² This response is an internal self-defense mechanism to enhance survival.²⁵³ When the parasympathetic nervous system takes over, the body can take on many recognizable changes. The Air Force describes these potential physical changes as:

- "Pounding heart
- Muscle tension
- Trembling
- Rapid, shallow breathing
- Dizziness
- Nausea
- Gut wrenching knot
- Sweating

²⁵⁰ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 1–2.

²⁵¹ Blair and Schweit, *A Study of Active Shooter Incidents in the United States between 2000 and 2013*, 9.

²⁵² United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 1–3.

²⁵³ Ibid.

- Dry mouth
- Goose bumps
- Tingling sensation in limbs or face
- Insensitive to pain”²⁵⁴

In addition to physical changes in response to fear, individuals may potentially experience changes in perception, as well as cognitive or behavioral changes.²⁵⁵ The Air Force describes “perceptual changes” as, “tunnel vision, heightened visual clarity, hearing distortion, and time distortion.”²⁵⁶ When faced with an event, teachers may experience these changes. It is important to recognize their likelihood and work to embrace their benefits. When faced with stressful events, teachers may find themselves hyper-aware and attuned to the situation. To the contrary, while these changes can be utilized in a beneficial fashion, they can also cause detrimental impacts if not recognized or addressed.

The Air Force lists cognitive or behavioral changes as “automatic behavior.”²⁵⁷ The Air Force describes these changes as instincts taking over during traumatic events. When applied to elementary school teachers, this change becomes critical. When faced with traumatic or stressful events, those involved will many times instinctively resort to whatever they have been thoroughly trained to do. Since teachers are not soldiers, firefighters, or law enforcement, in training constantly to handle stressful situations, they must take the initiative to do mental walkthroughs of these types of events. Repetition is critical in establishing patterns to implement when automaticity takes over.

Resilience is a critical component to responding successfully to an active shooter threat. The Air Force defines resilience as:

²⁵⁴ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 1-3—1-4.

²⁵⁵ *Ibid.*, 1-4.

²⁵⁶ *Ibid.*

²⁵⁷ *Ibid.*

The ability to respond, withstand, recover, and/or grow in the face of stressors and changing demands. Resilience does not mean an absence of stress or fear. Resilience during an active shooter incident is about a process of performing under stress, resisting the effects it may have, and then recovering and restoring as needed.²⁵⁸

Resilience recognizes that a potential victim will be scared when faced with a threat of this type. It acknowledges that individuals' bodies will react without their complete control. More importantly, resilience recognizes that despite fear and physiological changes, potential victims can overcome all these and be successful in their response.

The Air Force continues to build upon the mental preparation aspect of active shooter response and reaction. Tactical mental toughness skills are “designed to optimize performance and enhance resilience.”²⁵⁹ Specifically, the Air Force divides tactical mental toughness skills into two primary categories, composure and concentration.²⁶⁰ The importance of tactical breathing is emphasized to enhance composure and concentration.²⁶¹ Tactical breathing is “a technique employed to consciously control breathing to overcome or prevent the physical effects of stress.”²⁶² Tactical breathing is accomplished by “Inhale(ing) through your nose to the count of four seconds, hold your breath for four seconds, exhale(ing) through your mouth slowly for four seconds, and hold your breath for four seconds.”²⁶³

The tactical breathing technique is also known as “box breathing,” and is common in both military situations and anxiety mitigation practices.²⁶⁴ Tactical Breathing, the Warrior Mindset, and Attention Management are the Air Force's steps described as

²⁵⁸ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 2–1.

²⁵⁹ *Ibid.*, 2–5.

²⁶⁰ *Ibid.*

²⁶¹ *Ibid.*

²⁶² *Ibid.*

²⁶³ *Ibid.*

²⁶⁴ Mark Divine, *Unbeatable Mind: Forge Resiliency and Mental Toughness to Succeed at an Elite Level*, 3rd ed. (Scotts Valley, CA: Createspace Independent Publishing, 2015), 50–51.

necessary to develop tactical mental toughness skills.²⁶⁵ Attention management is a skill designed to enhance “internal and external awareness.”²⁶⁶ Attention management is accomplished by recognizing physiological stress responses and managing the body’s physical mechanisms to help keep those factors in check, which can be done through heart rate control, fear or rage response, and thought control.²⁶⁷ Tactical breathing can assist in overall calming and heart rate reduction. Fear and anger are natural reactions when threatened. The Air Force does not recommend focusing on eliminating fear or rage but rather managing those responses to optimize survivability.²⁶⁸ Thought control is an attempt in clearing “mental static” by pushing out negative thoughts of what could potentially happen, the feeling of being unprepared, or the lack of recognition of the situation.²⁶⁹ Instead, the focus should be on recognizing the situation for what it is, not being in denial, focusing thoughts on what is necessary to survive, and engaging the warrior mindset to set up for positive outcomes.

Many active shooter advisory documents refer to overall situational awareness to aid individuals better in surviving an active shooter event. In *Active Shooter: How to Respond*, the DHS advises to be cognizant of the surrounding environment and to stay vigilant to any potential dangers.²⁷⁰ Additionally, the guiding document references the value in predetermining exit routes in any building entered.²⁷¹ Ready Marine, a United States Marine Corps (USMC) website dedicated to personal emergency preparedness for soldiers and their families, also advises individuals to be aware of their environment and

²⁶⁵ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 2–5.

²⁶⁶ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 2–5.

²⁶⁷ *Ibid.*, 2–6.

²⁶⁸ *Ibid.*

²⁶⁹ *Ibid.*

²⁷⁰ U.S. Department of Homeland Security, *Active Shooter: How to Respond*, 41.

²⁷¹ *Ibid.*

pre-establish potential escape routes.²⁷² Despite the inherent value of pre-determining potential escape routes, potential victims must not lock themselves into any one specific plan and should remain flexible in adapting to situations.

When the tactical mental toughness skills are combined, they work by recognizing stressors and being attentive to keep those stressors in check. Utilizing techniques, such as refocusing and tactical breathing, overall survivability is enhanced by focusing on resilience and implementing the warrior mindset to let nothing stand in the way of accomplishing the ultimate goal of survival.²⁷³ Teachers preparing themselves in establishing a warrior mindset, and practicing those behaviors regularly, can greatly assist in responding to active shooter events. By recognizing the physical indicators of stress, teachers and school staff can focus on minimizing the impact of those physiological changes. Once physical changes are controlled, clarity in attention can be applied to the situation at hand. The more this approach is practiced, the better prepared the staff will be when called to task.

B. WILL TO SURVIVE

Similar to the “warrior mindset,” the “will to survive” expands on the foundation established. Teachers with the warrior mindset can implement the will to survive when faced with threats. By combining these two mental approaches, teachers and school staff can establish mental toughness and focus on doing whatever it takes to be successful in protecting themselves and their students. In *Survival, Evasion, and Recovery*, the DOD describes the components of “the will to survive” as:

- “Know your capabilities and limitations.
- Keep a positive attitude.
- Develop a realistic plan.

²⁷² United States Marine Corps, *Ready Marine Corps: Active Shooter* (Washington, DC: United States Marine Corps, n.d.), accessed March 15, 2017, http://www.ready.marines.mil/Portals/208/Docs/Factsheets/Terrorism/Active%20Shooter_08272015.pdf.

²⁷³ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 2–5.

- Anticipate fears.
- Combat psychological stress.
- Recognize and anticipate existing stressors (injury, death, fatigue, illness, environment, hunger, and isolation).
- Attribute normal reactions to existing stressors (fear, anxiety, guilt, boredom, depression, and anger).
- Identify signals of distress created by stressors (indecision, withdrawal, forgetfulness, carelessness, and propensity to make mistakes).²⁷⁴

In a group setting, similar to those common in school shootings, the DOD recommends that those involved consistently “reassure and encourage each other” throughout the event to help promote the “will to survive.”²⁷⁵

The U.S. Department of the Army, in *The Infantry Rifle Platoon and Squad*, describes a similar approach known as “mental stamina.”²⁷⁶ The manual discusses mental stamina by recognizing that an “individual’s awareness during combat is never complete” and that “there is no such thing as perfect awareness or understanding of the situation.”²⁷⁷ Furthermore, the Department of the Army states:

Mental stamina is the quality Soldiers must have to combat this uncertainty. Mental stamina provides the ability to assess the situation based on whatever facts are at hand, to intuitively make reasonable assumptions about what is not known, and to make logical decisions based on that information.²⁷⁸

²⁷⁴ Air Land Sea Application Center, *Survival, Evasion, and Recovery: Multi-Service Tactics, Techniques, and Procedures for Survival, Evasion, and Recovery* (Hampton, VA: Department of Defense, 2007), A-1, <https://fas.org/irp/doddir/army/fm3-50-3.pdf>.

²⁷⁵ Ibid., A-2.

²⁷⁶ United States Department of the Army, *The Infantry Rifle and Platoon Squad*, 1-6.

²⁷⁷ Ibid.

²⁷⁸ Ibid.

Teachers equipped with “mental stamina” will demonstrate the “will to survive” through the warrior mindset,” especially well when coupled with the three things the Department of the Army states that a leader needs:

- “Purpose: the reason to accomplish the mission.
- Direction: the means to accomplish the mission.
- Motivation: the will to accomplish the mission.”²⁷⁹

C. SENSORY INTEGRATION

In *Active Shooter Events and Response*, Blair et al. identify that “the number one sign of an active shooter event is gun fire.”²⁸⁰ Based on “normalcy bias,” the “brain will try to describe unusual events as normal first,” which in many scenarios, is classifying the sound like firecrackers.²⁸¹ Blair et al. ask, “how many times have you heard firecrackers at your place of employment or school?”²⁸² For most, they found the answer is zero.²⁸³ Based on the infrequency of actual firecrackers on a school campus, Blair et al. challenge that it is better to assume the worse, that it is gunfire, and accept potential embarrassment if it is firecrackers but that lives can potentially be saved by reacting in a timely fashion.²⁸⁴

In *The Socio-Behavioral Response of Survivors to Campus Active Shooter Events*, author Mark Landahl provides recommendations regarding potentially advantageous sensory response mechanisms. He concludes:

²⁷⁹ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 1–1; United States Department of the Army, *The Infantry Rifle and Platoon Squad*, 1–24; Air Land Sea Application Center, *Survival, Evasion, and Recovery: Multi-Service Tactics, Techniques, and Procedures for Survival, Evasion, and Recovery*, A–1.

²⁸⁰ Blair et al., *Active Shooter Events and Response*, 187.

²⁸¹ Ibid.

²⁸² Ibid.

²⁸³ Ibid.

²⁸⁴ Ibid.

Finding 1. The survivor response to campus active shooter events is social rather than asocial and includes helping behavior between survivors consistent with research findings in other disaster event types.

Finding 2: Survivors of active shooter events will process environmental cues, social cues, and engage in social interaction to define the situation, gather information and implement and reassess protective behavior choices within a framework that maintains and extends social and organizational roles.

Finding 3: Survivors gather additional information and process environmental cues, social observations, and social interactions to determine protective action behaviors that include taking cover on the floor, running to evacuate, running to shelter, hiding, using available resources to barricade themselves, locking door, turning off lights, and barricading doors.

Finding 4. Survivors show group level interaction for confirmation of environmental cues and processing of additional incident cues that lead to implementation and reassessment of protective actions many times with a division of tasks amongst the group. (Emergent Social Structure).²⁸⁵

A key takeaway from the Landahl findings is the recognition of two senses that need to be activated before personal action occurs. The value of the result becomes critical in the time sensitivity of an active shooter event. If potential victims can recognize, or assume the worst based on an initial sensory input, they have a much more rapid recognition time and have a potentially higher likelihood of survival based on the timesaving factor of not needing secondary sensory confirmation. The finding is consistent with the Air Force's emphasis on accepting the situation and not delaying response.²⁸⁶

²⁸⁵ Blair et al., *Active Shooter Events and Response*, 21–31; Mark R. Landahl, "The Socio-Behavioral Response of Survivors to Campus Active Shooter Events" (PhD diss., Oklahoma State University, 2015), v, 154–157.

²⁸⁶ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*.

Figure 6 illustrates Landahl's research findings. Based on the illustration, the time delay to seek secondary sensory confirmation is evident.²⁸⁷ As opposed to moving directly to "protective actions," potential victims move to "information gathering activities."²⁸⁸ By emphasizing immediate action and assumption of worst-case scenarios, event mitigation activities can begin immediately with one sensory cue and be advantageous to potential victims.

²⁸⁷ Mark Landahl, "The Socio-Behavioral Response of Survivors to Campus Active Shooter Events" (presentation, The 9th Annual Homeland Security and Defense Education Summit, Evolving Homeland Security to meet Future Threats/Hazards, September 26, 2015), 17, <https://www.chds.us/ed/resources/uploads/2015/12/Summit-2015-Landahl-Socio-Behavioral-Response-of-Survivors-of-Active-Shootings.pdf>.

²⁸⁸ Ibid.

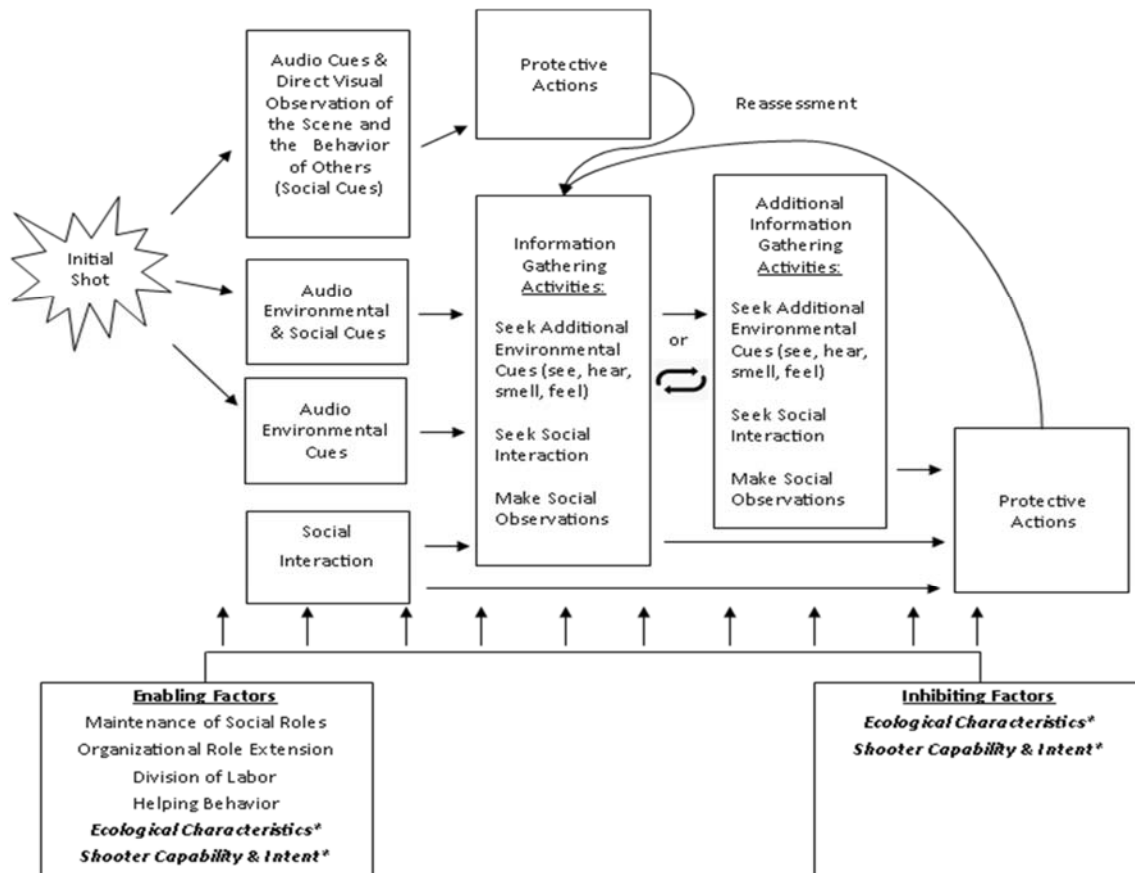


Figure 6. The Socio-Behavioral Response of Survivors to Campus Active Shooter Events²⁸⁹

Actual attacks bear out this fact. One Sandy Hook shooting report described two school administrators who were killed when they went to investigate the sound of shots fired, and a staff member who ran towards a “loud crashing noise.”²⁹⁰ After seeing bullet holes and smelling gunpowder, the employee recognized the situation and retreated to an area of safety to notify authorities.²⁹¹ A Columbine review also describes a scenario in

²⁸⁹ Source: Ibid.; Landahl, “The Socio-Behavioral Response of Survivors to Campus Active Shooter Events,” PhD diss., 155.

²⁹⁰ Sedensky III, *Report of the State’s Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012*, 11.

²⁹¹ Sedensky III, *Report of the State’s Attorney for the Judicial District of Danbury on the Shootings at Sandy Hook Elementary School and 36 Yogananda Street, Newtown, Connecticut on December 14, 2012*, 11.

which a teacher responded to the sounds of a “commotion” outside the building.²⁹² After looking out an exterior opening, the staff member and student were injured by debris resulting from a shot fired at the doors they were looking out.²⁹³

The Interagency Security Committee (ISC) also recommends not hesitating when faced with potential danger. The ISC recognizes, “During an active shooter incident, those present will rarely have all of the information they need to make a fully-informed decision about applying the **Run, Hide, Fight** options.”²⁹⁴

The ISC describes a 2005 report from the National Institute of Standards and Technology (NIST) that found that those individuals located closest to the floors impacted by the September 11, 2001, terrorist attacks “waited longer” to respond to the threat by evacuating than those further away from the immediate impact.²⁹⁵ It is unclear exactly what factors drove the evacuation differences. The ISC also discusses the differing levels of severity of the response of potential victims during the Virginia Tech shooting.²⁹⁶ These examples once again demonstrate the consequences of a delayed response to an immediate threat. To mitigate this threat, the ISC recommends that entities “Train staff to overcome denial and to respond immediately. For example, train staff to recognize the sounds of danger, act, and forcefully communicate the danger and necessary action (e.g., ‘Gun! Get out!’).”²⁹⁷

The *Active Shooter White Paper* compiled by ASIS provides some basic information outlining the necessity and feasibility of options-based approaches to active shooter events in schools. One of the first messages is that no one-size-fits-all approach

²⁹² Erickson, *The Report of Governor Bill Owens’: Columbine Review Commission*, 28.

²⁹³ Ibid.

²⁹⁴ Interagency Security Committee, *Planning and Response to an Active Shooter: An Interagency Security Committee Policy and Best Practices Guide*, 18.

²⁹⁵ Ibid.; National Institute of Standards and Technology, *Final Report on the Collapse of the World Trade Center Towers* (Washington, DC: Department of Commerce, 2005), http://ws680.nist.gov/publication/get_pdf.cfm?pub_id=909017159.

²⁹⁶ Interagency Security Committee, *Planning and Response to an Active Shooter: An Interagency Security Committee Policy and Best Practices Guide*, 18.

²⁹⁷ Ibid., 19.

exists and that all of the current programs have value since their intent is to help save lives.²⁹⁸ This approach is consistent with the something is better than nothing philosophy. Additionally, the paper describes the nonlinear nature of Run, Hide, Fight.²⁹⁹ Based on the incredible variability of active-shooter events, it is not possible to know which option will be the best at a given time. The white paper also goes on to describe the benefits teachers' gain from being highly familiar with their surroundings.³⁰⁰ Since teachers have the potential to spend more time in the buildings than a shooter may have, they have a distinct advantage provided they pay attention to their surroundings before an incident.³⁰¹

D. JOHN BOYD'S OODA LOOP

In the late 1970s, John Boyd, a fighter jet pilot, invented a tactical decision-making tool that would come to be known as Boyd's OODA Loop.³⁰² In *Boyd: The Fighter Pilot Who Changed the Art of War*, author Robert Coram describes the Boyd OODA cycle in detail. OODA stands for observe, orient, decide, act.³⁰³ In its original form, Boyd's OODA Loop is a highly complex feedback-based decision-making tool. (Figure 7) The most recent version illustrated as a simplified feedback loop is directly applicable to active-shooter responses. (Figure 8) In its simplified form, Coram describes the loop as "seen as a simple one-dimensional cycle, where one observes what the enemy is doing, becomes oriented to the enemy action, makes a decision and then takes an action."³⁰⁴

²⁹⁸ Destein, "Introduction to Active Shooter Programs," 1.

²⁹⁹ Ibid., 2.

³⁰⁰ Ibid., 7.

³⁰¹ Ibid.

³⁰² Joe Firestone, "The OODA Loop and Double-Loop Learning," All Life Is Problem Solving, June 16, 2008, <http://kmci.org/alllifeisproblemsolving/archives/the-ooda-loop-and-double-loop-learning/>.

³⁰³ Robert Coram, *Boyd: The Fighter Pilot Who Changed the Art of War* (Boston: Little, Brown, 2002).

³⁰⁴ Ibid., 334.

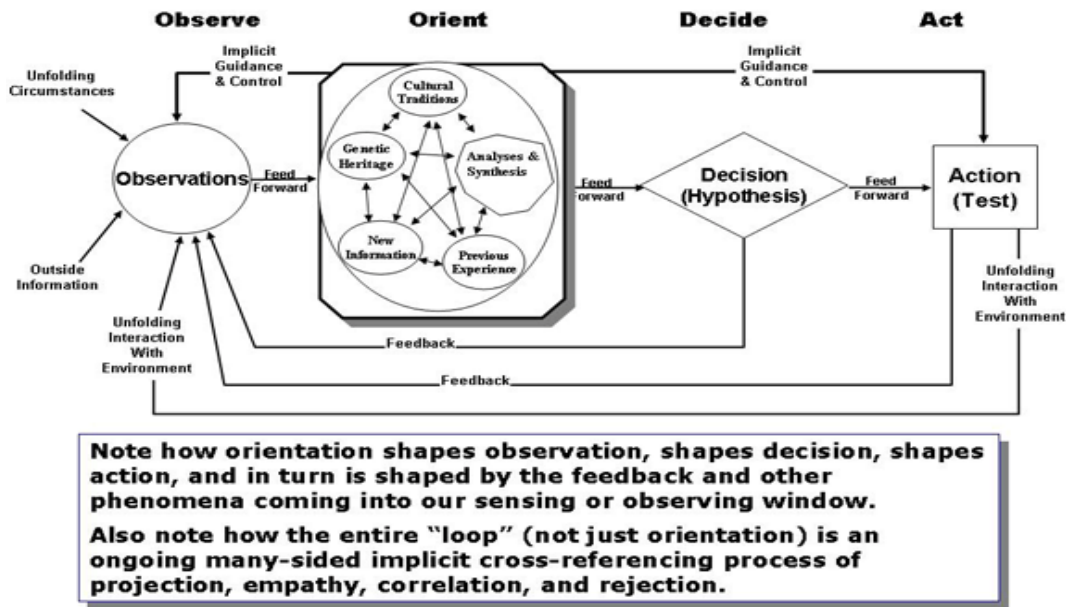


Figure 7. Boyd's OODA Loop³⁰⁵

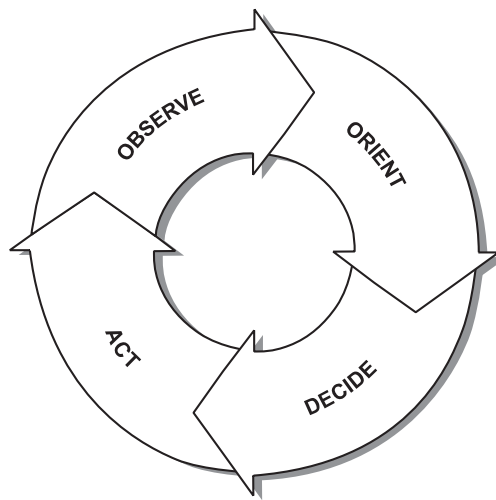


Figure 8. The Observe, Orient, Decide, and Act Loop³⁰⁶

³⁰⁵ Source: Firestone, "The OODA Loop and Double-Loop Learning."

³⁰⁶ Source: United States Marine Corps, *Intelligence Operations* (Washington, DC: United States Marine Corps, 2003), 2–1, <https://fas.org/irp/doddir/usmc/mcwp2-1.pdf>.

Boyd's intent was to emphasize that fighter pilots must stay ahead of their enemy and "must operate inside his adversary's time scale."³⁰⁷ Coram describes the value of the Boyd OODA Loop as:

Generating a rapidly changing environment—that is, engaging in activity that is so quick it is disorienting and appears uncertain or ambiguous to the enemy—inhibits the adversary's ability to adapt and causes confusion and disorder that, in turn, causes an adversary to overreact or underreact.³⁰⁸

Applying this type of approach to an active shooter event in a school provides a tactical advantage to teachers and school staff. Although teachers and school staff have an inherent advantage of working in the threat environment regularly, they must assume that potential attackers will have intimate knowledge of the school layout and active shooter procedures. Attackers familiar with the school design and expected actions give them a distinct advantage over their intended victims. If the staff can operate within their attackers' timeline and alter any expected actions, they sway the advantage their direction.

The adversaries' timescale can be described as the internal mental process conducted by the enemy. For example, "I am going to shoot out the front door so I can get past the locking devices. Then I am going to search the offices to find any staff or students there. After that I will work my way down the main hallway checking all of the doors, shooting anyone that I come across until someone stops me, but they won't take me alive."

The event or attacker's timeline, on the other hand, can be described as the external viewpoint of the timing of the events. For example, the shooter entered the main entry by shooting through the glass door. After that, the shooter shot everyone in the entrance area. The shooter then moved to the administration offices. After that, the shooter started into the hallways.

Combining timescale and timeline opportunities to establish tactical advantage exist. Using the example previously described, a teacher can find areas to advance in the

³⁰⁷ Coram, *Boyd: The Fighter Pilot Who Changed the Art of War*, 327.

³⁰⁸ *Ibid.*, 328.

timeline while operating in the adversaries' timescale. In this case, teacher x hears what sounds like gunshots. Teacher x stops teaching and peaks out of door to see what is happening. Teacher x is now behind in the timeline, as the shooter has already killed everyone in the main entry and is working toward the offices. Even worse, if teacher x walks toward the main entry or chats with other teachers trying to determine what is going on, they have now fallen further behind. Now, the shooter is moving into the main hallway where the teacher is located and has implemented no defensive tactics. The teacher never became immersed in the adversaries' timescale and found opportunities to get ahead in the attack timeline. Therefore, no tactical advantage was made.

Teacher y, on the other hand, became familiar with defensive tactics and tactical decision-making tools. Teacher y has already identified the two nearest exits (one primary, one secondary). Teacher y is already tied at the frontend of the timeline before the attack occurs. (The only reason teacher y is not ahead is that the attackers know they are about to attack). Teacher y now hears the same gunshots as teacher x.

- Teacher y immediately isolates the direction of the shots as being toward the main entry. (Gaining advantage).
- Primary exit is now out of play, secondary needs to be implemented. (Losing advantage).
- Without hesitating, teacher y orders the students to leave everything, go to the window, and start going outside. (Gaining advantage).
- Teacher y locks the door then follows the students out. (Gaining advantage).

Teacher y has already become immersed in the adversaries' timescale and is assuming that if attackers are shooting in the front office, it is only a matter of time before they come down the hallways. Thus, instead of delaying, teacher y works to advance a timeline advantage. If teacher y is wrong, the students can always be brought back in and breathe a sigh of relief, but they are alive. Teacher x is not. Nor are any of those students.

In the military, applicability of the loop speed is the main takeaway from the lesson.³⁰⁹ Coram emphasizes this point, and writes that having a full understanding of the complexities of Boyd's original matrix is not as valuable as recognizing, "the need to execute the cycle in such a fashion as to get *inside* the mind and the decision cycle of an adversary. The unpredictability is crucial to the success of the OODA Loop."³¹⁰

When teachers and staff encounter an active shooter event, it is critical that they do not slow the OODA Loop once begun but rather accelerate it to keep the advantage over their adversary.³¹¹ Boyd advises that to stay ahead of the enemy's tempo potential, victims must take the "least-expected action" versus the known or "most-effective action."³¹² A USMC intelligence manual describes tempo as "keep(ing) the enemy off balance, thereby increasing his friction. Speed, initiative, and flexibility generate and maintain a tempo that the enemy cannot match."³¹³

As previously discussed, if a perpetrator has knowledge of layouts or procedures, they can predict the "most effective action" that teachers and staff may be inclined to take.³¹⁴ By implementing the "least expected action," the decision maker can impact the effectiveness of the attacker. Coram states:

To take the least-expected action disorients the enemy. It causes him to pause, to wonder, to question. This means that as a commander compresses his own time, he causes time to be stretched out for his opponent. The enemy falls farther and farther behind in making relevant decisions. It hastens the unraveling process.³¹⁵

A relevant example of the expected is the recommendation of many active shooter guidance documents to post emergency evacuation routes in all classrooms. While applicable to fire scenarios, it may provide a higher-risk situation for those threatened by

³⁰⁹ Coram, *Boyd: The Fighter Pilot Who Changed the Art of War*, 334.

³¹⁰ *Ibid.*, 335.

³¹¹ *Ibid.*, 338.

³¹² *Ibid.*, 336.

³¹³ United States Marine Corps, *Intelligence Operations*, 1–2.

³¹⁴ Coram, *Boyd: The Fighter Pilot Who Changed the Art of War*, 336.

³¹⁵ *Ibid.*

an active shooter. If the attacker is familiar with the evacuation routes, this person is then knowledgeable of the expected action. By following the posted evacuation route, teachers and students may walk directly into the shooters' firing lanes. According to the USMC manual on intelligence operations, "The OODA loop applies to any two-sided conflict, whether combatants are individuals or large military formations. When engaged in conflict, participants—

- Observe. Take in information about the environment, the friendly status, and the threat.
- Orient. Make estimates, assumptions, analyses, and judgments about the situation to create a cohesive mental image.
- Decide. Determine what needs to be done, whether it is an immediate reaction or a deliberate plan.
- Act. Put the decision into action."³¹⁶

In the previous example, numerous "expected" actions are possible. The most likely action of the enemy is that of the shooter working through the entry and killing while proceeding. People are placed at greater risk when left behind while the shooter advances. The teacher's "expected" actions would be to delay reaction. Peer into the hallway or even walk toward the shooting to determine what is happening. If shooting is determined, the next expected action is for the teacher to lock the classroom door, turn off the lights, and have the students remain quiet. In this example, the shooter has time to move forward and attempt to access the classrooms. Teacher y's actions can be described as least expected.

- There was no delay (unexpected).
- The door was locked (expected) but a rapidly deployed impediment for shooter advancement.

³¹⁶ United States Marine Corps, *Intelligence Operations*, 2–1.

- Then teacher y took the students out the window and away from the school to a nearby neighborhood (unexpected).

If a teacher has the acumen to recognize the pattern of development of the event at hand, through observation and orientation, it is then possible to stay ahead of the attacker's decisions and actions by implementing an action that is "least-expected" versus "most-effective."³¹⁷ Additionally, teachers and staff can rapidly estimate an "enemy most likely course of action."³¹⁸ By quickly determining what the enemy most likely will do next, potential victims can stay ahead of the enemy's tempo.

E. DEFEND YOUR SECTOR—AIR FORCE

The USAF embraces an active shooter response philosophy known as "Defend Your Sector."³¹⁹ The phrase "simply implies the actions taken during the fight to protect yourself and others in the area where you have barricaded."³²⁰ If teacher and school staff opt to fortify themselves and their students in a location, "Defend Your Sector" implies that they use multiple mechanisms to protect themselves and others actively.

Actively attempting to barricade and impede the shooter's advantage has the potential of increasing survivability. Fortifying describes the action of securing the room from entry to include such things as locking the door and pushing a large desk in front of it. Impeding shooter advancement, on the other hand, may not prevent entry or movement, but will slow or disorient the attacker. Examples of impediments include a stack of chairs at the door or multiple small desks. If the decision is made to remain in the classroom, teachers and students should Hide "in a place that reduces observation from the shooter, but allows you to react if you must defend your sector."³²¹ If these efforts to

³¹⁷ Coram, *Boyd: The Fighter Pilot Who Changed the Art of War*, 336.

³¹⁸ United States Marine Corps, *Rifle Squad Tactics B2F2837 Student Handout* (Washington, DC: United States Marine Corps, 2015), 13, <http://www.trngcmd.marines.mil/Portals/207/Docs/TBS/B2F2837%20Rifle%20Squad%20Tactics.pdf?ver=2015-05-27-100939-710>.

³¹⁹ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*.

³²⁰ *Ibid.*, 6–3.

³²¹ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 6–3.

fortify fail, the items put in the attacker's way, combined with a strategic hiding location, will provide the tactical advantage needed if fighting is a necessity.

F. STRESS EXPOSURE TRAINING AND THE DIRT DIVE

In 1998, Cannon-Bowers and Salas discovered the value of recognizing expected stressors to prepare better to respond in times of stress. The resulting book reported the findings of a research project conducted by the Office of Naval Research. The intent of the TADMUS (tactical decision making under stress) project “was to develop training, simulation, decision support, and display principles that would help to mitigate the impact of stress on decision-making.”³²² In *Making Decisions under Stress: Implications for Individual and Team Training*, the authors found, “the following characteristics, which can be defined as stressors, all appear to be present in the operational environment:

- Multiple information sources
- Incomplete, conflicting information
- Rapidly changing, evolving scenarios
- Requirement for team coordination
- Adverse physical conditions
- Performance pressure
- Time pressure
- High work/information load
- Auditory overload/interference

³²² Janis A. Cannon-Bowers and Eduardo Salas, *Making Decisions under Stress: Implications for Individual and Team Training* (Washington, DC: American Psychological Association, 1998), <http://www.apa.org/pubs/books/4318761.aspx>.

- Threat”³²³

Describing SET (Stress Exposure Training), Cannon-Bowers and Salas stated:

It rests on the notion that that when people have accurate expectations regarding what to expect in the stress environment, have confidence in their ability to cope with such stressors, and have an opportunity to practice dealing with the stress so that appropriate skills can be developed, maximal performance can be expected.³²⁴

While reality-based training has been both celebrated and criticized by subject matter experts, stress-based training is possible without the implementation of an actual drill. Although potentially not as effective, teachers and school staff can perform mental exercises to prepare themselves for stress exposure better. By doing “dry run” mental walkthroughs of “if-then” scenarios, teachers and staff can prepare themselves for the multitude of variables that may be present during an active-shooter event. The Navy Seals refer to this practice as a “dirt dive.”³²⁵ It is rehearsing a detailed mental “walk through” of an intended mission. Former Navy Seal and author Mark Divine points out, “When you visualize the mission your body and subconscious mind gain valuable, yet subtle, physiological and psychological cues. These insights prove to be invaluable keys for success when you act on your plan to accomplish the mission.”³²⁶

G. SITUATIONAL AWARENESS

The U.S. Coast Guard defines situational awareness as, “the ability to identify, process, and comprehend the critical elements of information about what is happening to the team with regards to the mission. More simply, it’s knowing what is going on around you.”³²⁷

³²³ Cannon-Bowers and Salas, *Making Decisions under Stress: Implications for Individual and Team Training*, 19.

³²⁴ Ibid., 30.

³²⁵ Mark Divine, “SEALFIT—4 Tactics for Success,” Navy SEALs, January 24, 2014, <https://navyseals.com/3837/sealfit-4-tactics-success/>.

³²⁶ Ibid.

³²⁷ United States Coast Guard, *Team Coordination Training Student Guide* (Washington, DC: United States Coast Guard, 1998), 5–1, <https://www.uscg.mil/auxiliary/training/tct/chap5.pdf>.

Situational awareness is one of the essential elements of human intelligence. Intelligence has a direct and immediate relationship to operations or defensive decision-making. The U.S. Marine Corps states, “Intelligence drives operations by shaping the planning and execution of operations. It provides a menu of factors that the commander considers when making a decision. Specifically, intelligence

- Identifies potential advantages offered by the environment.
- Describes limitations imposed by the environment.
- Ascertains and assesses enemy strengths to be avoided.
- Uncovers enemy critical vulnerabilities that can be exploited.
- Recommends COAs based on factors of the battle space and threat.
- Enables rapid decision-making and generating and maintaining tempo.”³²⁸

Situational awareness is a continuous process. It begins the moment teachers wake up and are aware of personal well-being. As they pull into the school parking lot, they are aware of things that look out of place. As they approach the school, and subsequently, their classroom, they recognize areas of potential concern, areas of refuge, and routes of safety. In class, they identify the nearest exits. They identify different items for barricading the door of their classroom. They know how the doors lock. They know the quickest way out of the building and multiple backup routes. They recognize tools for diversions, decoys, and weapons. They also know their students. They know their capabilities and know they will do everything in their power to protect them.

Former Navy Seal and *SEAL Survival Guide* author Cade Courtley states:

When you’re going to a mall or market, or even during your first days of class at a new school, make a mental note of exits. Have at least three options, preferably in three different directions. This could be as obvious as a double-door entry or as desperate as a second-floor window with a ten-foot drop onto pavement. Second, observe the whereabouts of any large items or objects that seem sturdy enough to provide cover, if needed,

³²⁸ United States Marine Corps, *Intelligence Operations*, 1–5.

and file this information. In some malls, for example, there may be a lounge area with furniture, or sculptures, or columns that are placed at regular intervals. In a school, are the desks bolted to the floor? Do the windows open? Filled bookshelves in a library or the cooking and dishwashing equipment in a cafeteria will provide very good cover.³²⁹

Cade's soft target Situational Awareness Checklist states:

- "Find your exits.
- Locate places or objects that could serve as your nearest cover.
- Observe individuals who are dressed strangely, acting abnormally, or carrying something suspicious.
- Trust your gut."³³⁰

Put more succinctly, "situational awareness: exits, cover, people."³³¹ Teachers and school staff have a constantly evaluative situational awareness cycle. As they move throughout the school, and throughout their day, they should constantly be evaluating the what if scenarios and determining potential "exits, cover, and people."³³²

Commitment to a winning mindset can be a critical component in the potential survival of a threatening event. A lot of research has been conducted on handling stressful situations and the impact of stress on decision-making. Teachers and school staff, while not frequently faced with situations of this type, must actively engage in practicing the principles of functioning in stressful environments at regular intervals. It does not cost money to practice and perfect situational awareness, mindset preparation, and a willingness to succeed.

³²⁹ Cade Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)* (New York: Gallery Books, 2012), Kindle edition, loc. 141–142, https://www.amazon.com/SEAL-Survival-Guide-Shooter-Medicine-ebook/dp/B01H0IOZKA/ref=sr_1_9?s=digital-text&ie=UTF8&qid=1500398420&sr=1-9&keywords=seal+survival+active+shooter.

³³⁰ Ibid., loc. 154–157.

³³¹ Ibid., loc. 141.

³³² Ibid.

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IV. DEFENSIVE TACTICS AND TACTICAL DECISION-MAKING

In the 2013 *Active Shooter Events and Response*, Blair et al. quantified the casualty rate of active-shooter events as “*Casualties = f(rate of suitable target location*response time)*”³³³ The research identified the casualty rate of the events as a function of two things:

- (1) the amount of time that the shooter has to perform the attack
- (2) the rate at which the offender can find suitable targets to shoot³³⁴

More importantly, the research concluded, “that many times the attack stopped because the potential victims took action to stop the shooter directly or made it difficult for the shooter to find targets.”³³⁵ These findings are conducive to the research in emphasizing that potential victims attempt to make themselves “hard targets” versus “soft targets.” As simple as it may seem, being harder to hurt has dramatic increases in survivability. Becoming a hard target begins with ongoing situational awareness and a willingness to succeed as previously discussed. The following tactical techniques help to maintain the protection as the situation develops.

Regardless of having the appropriate tactical mindset, if a teacher does not know how to navigate a threatening environment physically, the likelihood of survival falls. By combining the tactical mindset with task level tactical skills, teachers and school staff give themselves a distinct tactical advantage when faced with threats. The following chapter provides detailed tactical practices utilized by military and law enforcement personnel. These practices are intended to decrease risk in a high-risk environment, increase the likelihood of survivability, and provide a tactical advantage to those threatened.

³³³ Blair et al., *Active Shooter Events and Response*, 174.

³³⁴ Ibid.

³³⁵ Ibid.

A. COVER VERSUS CONCEALMENT

A major military delineation describes the difference between cover and concealment. When hiding from or attempting to escape from an active shooter threat, it is important for those threatened to recognize the difference as well. According to the USAF, “cover is an object that can protect against weapons fire.”³³⁶ Concealment, on the other hand, is an object that “only provides [protection] against visual detection from the enemy.”³³⁷ When teachers or school staff attempt to Hide or lead themselves and students to a safe area, it is important to recognize the difference between cover and concealment. As they move through a zone, concealment locations may need to be a temporary solution if shooting is occurring. According to the ISC, ballistic protection “cover” includes such things as:

- “thick walls made of steel,
- cinder block, or brick and mortar;
- solid doors with locks;
- and areas with minimal glass and interior windows”³³⁸

If cover is an option, it is preferred, as it provides both concealment and ballistic protection.³³⁹ Granted, an option may not exist to choose between the two; if so, cover should be prioritized (Figure 9). Courtley states, “Whatever you choose as cover or concealment, avoid bunching up with too many people. In these circumstances, people huddled together will create a larger and more attractive target; a single bullet can penetrate several people.”³⁴⁰

³³⁶ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 5–2, 6–3.

³³⁷ Ibid.

³³⁸ Interagency Security Committee, *Planning and Response to an Active Shooter: An Interagency Security Committee Policy and Best Practices Guide*, 7.

³³⁹ Ibid.

³⁴⁰ Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 201.

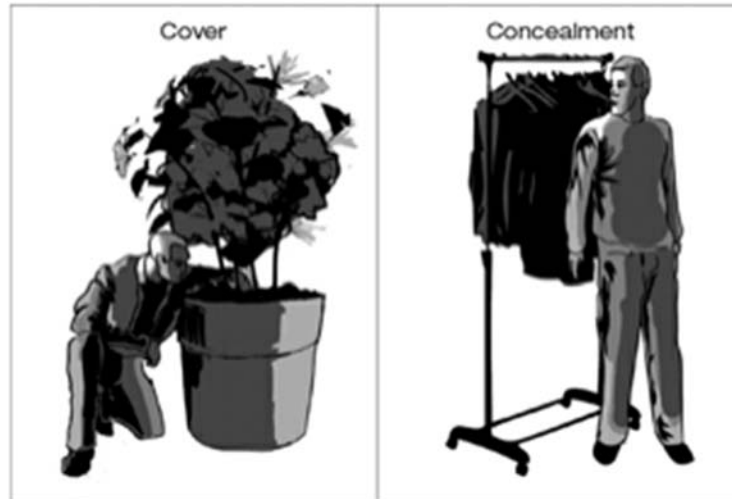


Figure 9. Cover versus Concealment³⁴¹

B. ANTI-SNIPER MOVEMENT

Following the July 7, 2016 sniper attack that killed five police officers in Dallas, Texas, the Scottsdale Police Department (SPD) in Arizona provided anti-sniper awareness to city staff.³⁴² During the presentation, the SPD snipers provided lessons learned from a variety of sniper attacks. A valuable takeaway from the training was the value of individual movement. While most school-based active-shooter scenarios are not sniper events, the lessons still provide value to anyone attacked. Personnel were advised to move perpendicularly to the shooter; doing so increases the amount of ground covered from left to right or right to left. Increasing the amount of distance covered in a shorter amount of time decreases the shooter's ability to acquire targets quickly. By running straight away from a shooter (without concealment or cover) the shooter has straight line target acquisition ability.³⁴³ Moving at an angle away from the shooter narrows the amount of lateral distance covered and makes target acquisition easier.³⁴⁴ While value is

³⁴¹ Source: Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 206.

³⁴² Faith Karimi, Catherine E. Shoichet, and Ralph Ellis, "Dallas Shooting: 5 Officers Die, Suspect ID'd," CNN, July 9, 2016, <http://www.cnn.com/2016/07/08/us/philando-castile-alton-sterling-protests/index.html>.

³⁴³ Dan Greene, *Anti-Sniper Awareness* (Scottsdale, AZ: Scottsdale Police Department, n.d.).

³⁴⁴ Greene, *Anti-Sniper Awareness*.

obvious in providing the most distance possible between the potential victim and the threat, it is important to provide as much tactical advantage to the threatened as possible.

Distance should be established as soon as possible when cover or concealment are available. The U.S. Army's Asymmetric Warfare Group provides direction for combatants under enemy fire. Many of the suggestions can apply to any scenario when gunfire is a threat. Regarding movement while under fire, the guide emphasizes the value of not setting patterns. Similar to the OODA philosophy of doing the unexpected, movement is trackable once patterns occur. The guide also highlights the use of shadows, cover, and concealment.³⁴⁵ When unable to utilize cover and concealment to mask movement, the guide recommends "keeping in constant motion," and "moving in 'S' or 'W' paths."³⁴⁶

In *Survival, Evasion and Recovery*, the DOD states the following when moving through urban environments:

- "Look for and move to 'friendly' controlled location or stronghold point.
- Head to concealment to break visual contact.
- If seen, change direction radically.
- Use caution when passing windows and doors; try to avoid."³⁴⁷

C. I'M UP, THEY SEE ME, I'M DOWN

The mnemonic "I'm Up, They See Me, I'm Down" is the preferred USMC schema for movement under fire.³⁴⁸ The time required to recite this mnemonic when moving from cover or concealment to other cover or concealment matches the time

³⁴⁵ U.S. Army Asymmetric Warfare Group, *Sniper Awareness and Counter-Sniper Tips* (Fort George G. Meade, MD: U.S. Army Asymmetric Warfare Group, 2007), 1.

³⁴⁶ Ibid.

³⁴⁷ Air Land Sea Application Center, *Survival, Evasion, and Recovery: Multi-Service Tactics, Techniques, and Procedures for Survival, Evasion, and Recovery*, I-5.

³⁴⁸ United States Marine Corps, *Fire and Movement*, 3.

needed for target acquisition by a sniper. The tactic starts upon deciding to move from one area to another, in an active shooting lane. Upon moving, the next step is to recite, “I’m up, they see me, I’m down” in a regular speech cadence.³⁴⁹ By the time the end of “I’m down” is reached, people should be under new cover or concealment. Not only is a tactical advantage provided by decreasing target acquisition time, but it also assists in pre-planning movements by comparing the amount of time needed to move from one area to another. While this detail can vary based on the type of weapon used (single shot versus semi-automatic or automatic), the saying provides basic guidance again by increasing the tactical advantage of those threatened.

D. KILL ZONES

According to author Cade Courtley, surviving the first 10 seconds of an attack can greatly increase overall chances for survival.³⁵⁰ According to Courtley, the three typical reactions to an immediate threat are to “fight, flight or freeze.”³⁵¹ He suggests a technique called “get off the X.”³⁵² Courtley emphasizes that potential victims must not freeze or “burrow in.”³⁵³ The “X” or “kill zone” refers to the shooter’s immediate vicinity where most damage occurs (Figure 10).³⁵⁴ By immediately providing as much distance as possible from the “kill zone” in the first few seconds of an attack, and angling away from the shooter’s primary focus, the chances of survival increase dramatically.³⁵⁵ Courtley points out that a typical response from people to an immediate threat is to hit the ground and cover their heads; while this action may be automatic for some, it places potential victims at a higher risk if they do not continue to move.³⁵⁶ This advice is consistent with the U.S. Army’s emphasis that potential victims “keep moving” since

³⁴⁹ United States Marine Corps, *Fire and Movement*, 3.

³⁵⁰ Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 173.

³⁵¹ *Ibid.*

³⁵² *Ibid.*, loc. 171.

³⁵³ *Ibid.*, loc. 173.

³⁵⁴ *Ibid.*, loc. 171.

³⁵⁵ *Ibid.*, loc. 171–173.

³⁵⁶ *Ibid.*, loc. 186.

attackers tend to fixate on the easiest targets.³⁵⁷ Courtley recommends seeking the immediate cover possibly identified earlier, or if hitting the ground immediately to start moving to suitable cover.³⁵⁸ Courtley's guidance is consistent with the USMC guidance to be a "hard target;" thus, making it harder to be attacked.³⁵⁹



Figure 10. Kill Zones³⁶⁰

³⁵⁷ U.S. Army Asymmetric Warfare Group, *Sniper Awareness and Counter-Sniper Tips*, 1.

³⁵⁸ Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 186.

³⁵⁹ United States Marine Corps, *Fire and Movement*, 3.

³⁶⁰ Source: Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 171.

Once those threatened have gotten off the “X,” continued, purposeful movement is key. It is important that as much distance as possible be put between the potential victims and the shooter. Moving from cover to cover, when available, in small bursts (3–5 seconds: I’m Up-They See Me, I’m Down) provides a safer escape and small mental victories, which reinforced the warrior mindset and will to survive.³⁶¹ After small covered escapes have occurred, it is then possible to begin to make larger escape bursts when a safe distance has been established. According to Courtley, “as you gain distance from the shooter, you can increase the distance you travel between covers.”³⁶² Courtley also adds, “that the farther away from the shooter you are, the faster you can move, until even sprinting if the situation warrants it.”³⁶³ Courtley reminds, “that if you can hear gunfire, you can be shot” and to “continue to act with maximum purpose and calculated caution.”³⁶⁴

E. NEGOTIATING OBSTACLES

The DOD emphasizes the fundamental importance of proper individual movement techniques (IMT) in battle scenarios.³⁶⁵ The DOD defines the elements of IMT as “high crawl, low crawl, and 3–5 second rush.”³⁶⁶ Courtley also references the high and low crawl as potential movement techniques when faced with a potential threat (Figure 11).³⁶⁷ In discussing techniques to navigate obstacles, the USMC describes high crawl use conditions as “when you have some cover or concealment, but not enough to stand.”³⁶⁸ High crawl is executed by “lifting your belly only inches from the floor and

³⁶¹ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*; Air Land Sea Application Center, *Survival, Evasion, and Recovery: Multi-Service Tactics, Techniques, and Procedures for Survival, Evasion, and Recovery*; United States Marine Corps, *Fire and Movement*; Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*.

³⁶² Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 208.

³⁶³ *Ibid.*

³⁶⁴ *Ibid.*, loc. 208–213.

³⁶⁵ United States Department of the Army, *The Infantry Rifle and Platoon Squad*, 1–7.

³⁶⁶ *Ibid.*

³⁶⁷ Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 194.

³⁶⁸ United States Marine Corps, *Fire and Movement*, 3.

moving on your knees and elbows.”³⁶⁹ The USMC describes the high crawl as the preferred method when speed is of the essence, running is not an option, and keeping a low profile is still necessary.³⁷⁰ The USMC describes low crawl use conditions as “when there is no cover or you are going through a low lying obstacle.”³⁷¹ Low crawl is executed by “pushing with your toes and pulling with your fingers, inch by inch if necessary, keeping you flat to the floor and out of range.”³⁷² This crawl is mostly utilized when cover is needed over speed.³⁷³

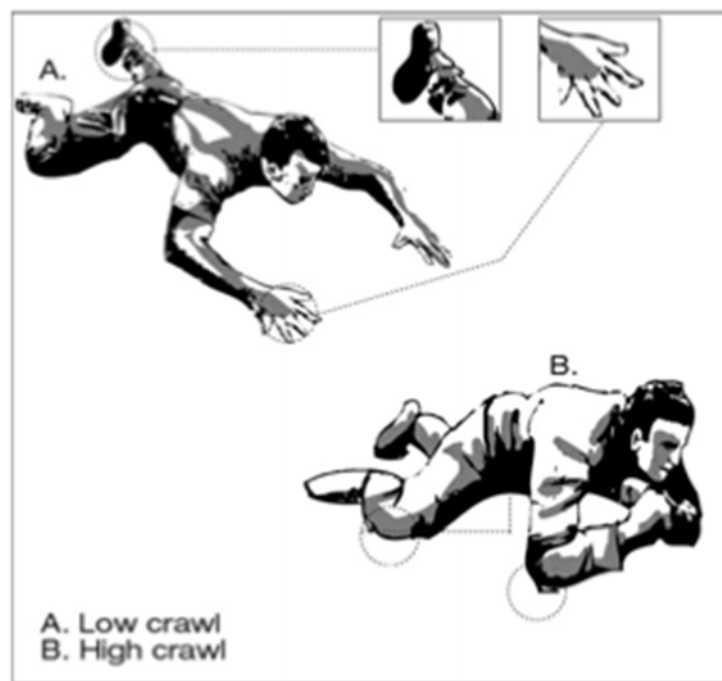


Figure 11. High Crawl versus Low Crawl³⁷⁴

³⁶⁹ Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 194–198.

³⁷⁰ United States Marine Corps, *Fire and Movement*, 3.

³⁷¹ United States Marine Corps, *Fire and Movement*, 3.

³⁷² Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 194.

³⁷³ United States Marine Corps, *Fire and Movement*, 3.

³⁷⁴ Source: Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 198.

F. DANGER AREAS

When moving between cover and concealment, those threatened may be faced with a variety of open areas, hallway junctions, or otherwise compromised situations, which are known as “danger crossings” or “danger areas.”³⁷⁵ In *SWAT Leadership and Tactical Planning* author Tony Jones advises that movement should “circumvent” or avoid crossing open areas whenever possible.³⁷⁶ If avoidance is not a possibility, Courtley advises to:

Take a moment to discern a pattern in the shooting and try to move when there is a pause in the gunfire. This will generally happen when the weapon is being reloaded, and it will give you a few seconds to move without taking fire. While preparing your body to make this move, use the combat breathing technique we discussed earlier.³⁷⁷

Commonly found danger crossings in educational environments are doorways and hallway intersections. These intersections are typically in a “T” fashion. Teachers navigating a danger crossing can find themselves at the intersection of a “T” hallway junction moving in both the direction of the long and short side of the “T.” Combined with Courtley’s recommendation to recognize patterns in the firing, moving in a tactical order across the danger crossings can increase potential survivability. Tactical order is implemented by a teacher (Figures 12 and 13, position number 3) going to the corner of the hallway, checking if it is clear and ordering students to cross. The teacher is strategically navigating the danger crossing and increasing the likelihood of survival. The following figures demonstrate tactical movement across both styles of “T” hallway intersections. While these figures demonstrate a military building clearing technique

³⁷⁵ Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 232; United States Marine Corps, *Marine Rifle Squad* (Washington, DC: United States Marine Corps, 2002), 8–25, <http://www.marines.mil/Portals/59/Publications/MCWP%203-11.2%20Marine%20Rifle%20Squad.pdf?ver=2012-10-11-164048-590>.

³⁷⁶ Tony L. Jones, *SWAT Leadership and Tactical Planning: The SWAT Operator’s Guide to Combat Law Enforcement* (Boulder, CO: Paladin Press, 1996), 48, 83, https://gooddebate.org/sin/mirror/library/security/Swat_Leadership_And_Tactical_Planning_-_T_-_Tony_L._Jones.pdf.

³⁷⁷ Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 233.

(Figures 12 and 13) they can also be applied when a teacher, possibly with the aid of a teacher's assistant, is guiding children through the hallways of their school.

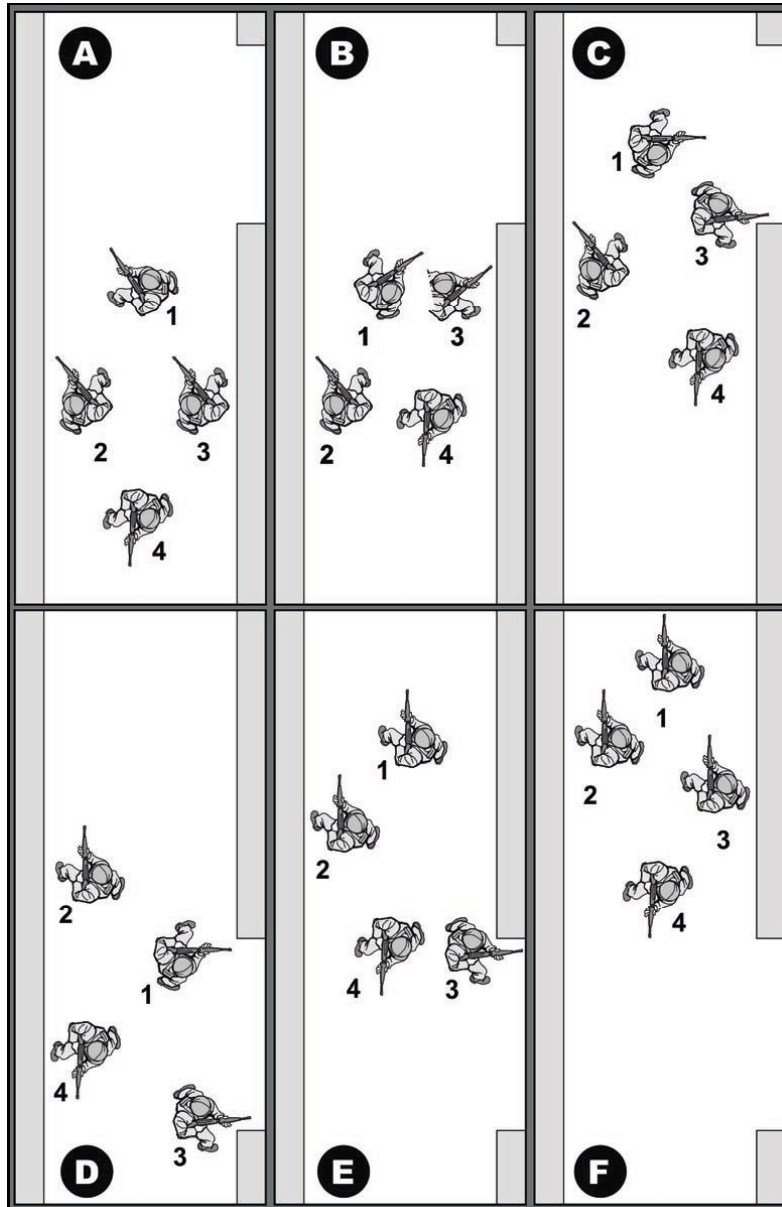


Figure 12. Clearing Hallway Junctions at “a ‘T’ Intersection when Approaching along the ‘Cross’ of the ‘T’”³⁷⁸

³⁷⁸ Source: United States Department of the Army, *The Infantry Rifle and Platoon Squad*, 7–43–44.

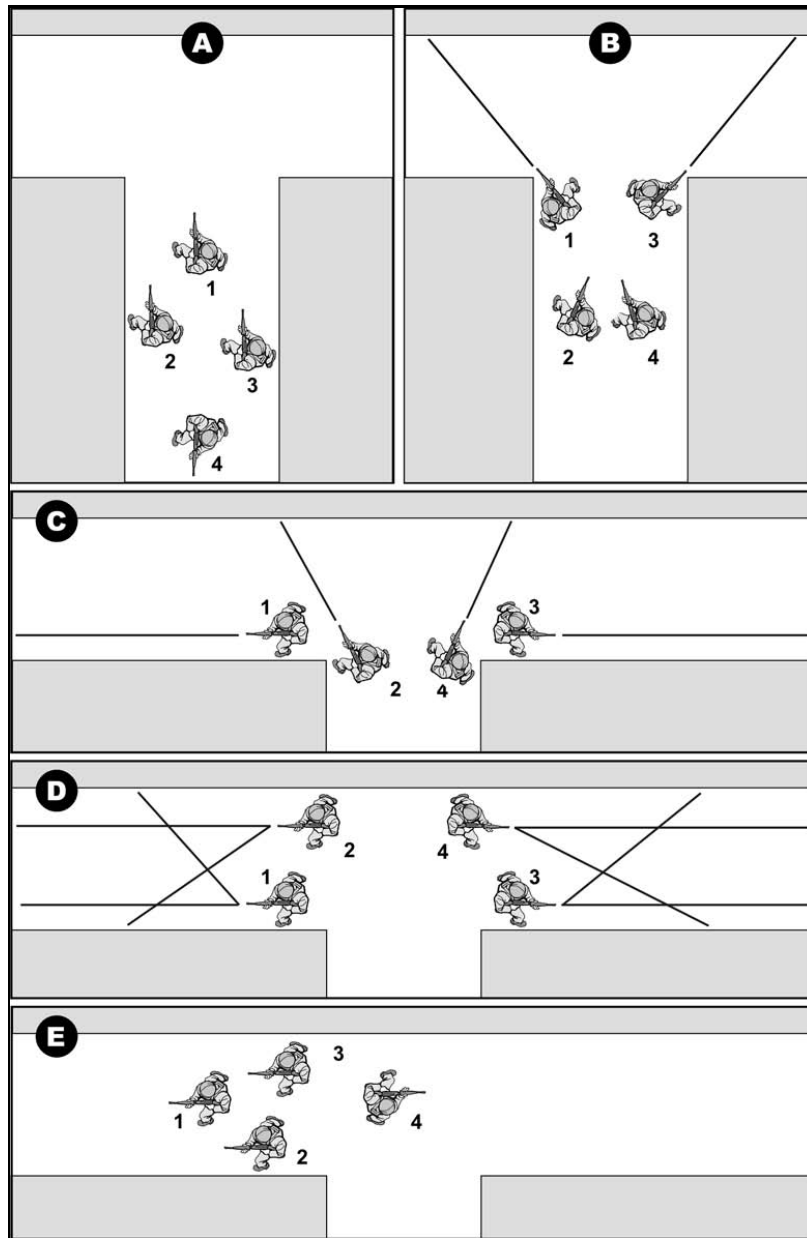
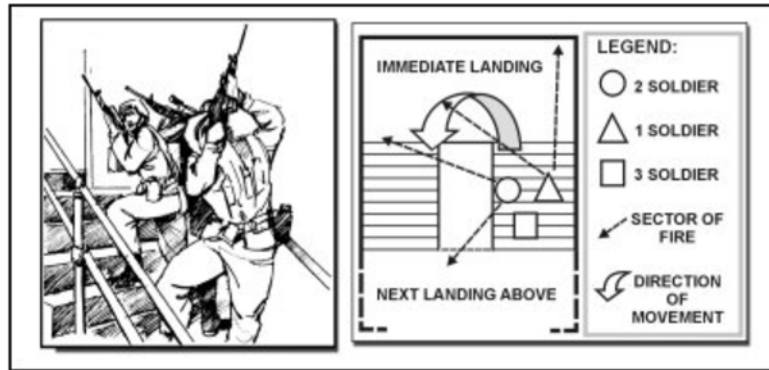


Figure 13. Clearing Hallway Junctions at “a ‘T’ Intersection when Approaching from the Base of the ‘T’”³⁷⁹

Another danger crossing commonly found in schools is stairwells. Navigating stairwells can be complicated. Figure 14 demonstrates a stairwell clearing technique that

³⁷⁹ Source: United States Department of the Army, *The Infantry Rifle and Platoon Squad*, 7–45–46.

can again be implemented by teachers and school staff when trying to escape potentially hazardous areas.



By taking the point position, teachers can move their students across the danger crossings at intervals conducive with the situation and pause them when at excessive risk. Although crossing danger areas should be avoided, sometimes they are unavoidable. By moving with purpose, teachers are strategically navigating their environment and are avoiding unsafe movement. When faced with danger crossings, teachers should navigate their students through them as quickly as possible. Unless absolutely necessary, low or high crawls or “S”/“W” patterned movement should be avoided for the sake of speed.

In conclusion to tactical movements, Courtley offers the following list to reiterate the valuable steps in providing a safe distance when avoiding the active shooter threat:

- “1. Get off the X. Remove yourself from immediate danger.
- 2. Regroup and regain focus.
- 3. Perform a self-assessment for injuries and resources.
- 4. Form your game plan. Make a decision, keep the group cohesive, and assign individuals responsibility.

³⁸⁰ Source: United States Department of the Army, *The Infantry Rifle and Platoon Squad*, 7–47.

- 5. Live or die. Pull the trigger! This is your mission!
- 6. Make sure you safely encounter law enforcement.”³⁸¹

G. BARRICADING

Terminology regarding hiding varies across the research. Hiding can be different from lockdown and is definitely different from “shelter-in-place,” which typically refers to longer periods of time and usually from natural disaster events. As lockdown can be passive or active, hiding implies an active approach to self-protection. The USAF takes a step further and emphasizes the value of “barricading.”³⁸² “Barricading is not merely hiding. It is the active effort to hinder the shooter’s ability to enter the room or facility.”³⁸³

The USAF recognizes barricading as: “A viable option if: (1) it is likely you are not directly confronted with the shooter(s); or (2) it is likely your egress route is obstructed and/or under the observation of the shooter(s).”³⁸⁴

Closing and locking the doors, finding an “improvised weapon,” preparing to Fight, and using “heavy objects to barricade the door,” begin the barricading process.³⁸⁵ The USAF states:

If barricading the door with objects in the room is not possible, use objects in the room as obstacles to slow down, fix, turn, or obscure the vision of the shooter. Even though an obstacle will not prevent a shooter from entering your area (i.e., sector), it will help you achieve a tactical advantage to ‘Defend Your Sector.’”³⁸⁶

According to the USAF, once barricade is decided, the following assists in attempting to gain a tactical advantage.

³⁸¹ Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*, loc. 362–364.

³⁸² United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 6–2.

³⁸³ Ibid.

³⁸⁴ Ibid.

³⁸⁵ Ibid.

³⁸⁶ Ibid., 6–3.

- “Turn off the lights.
- Remain quiet and observe noise discipline (e.g., limit movement, talking, whispering, and yelling).
- Silence your cell phone and/or pager.
- Turn off any source of noise (e.g., radios, televisions).
- Develop a strategy to “Defend Your Sector” using fight in case you cannot prevent the threat from entering the room.”³⁸⁷

While much of the tactical advice and techniques described in this chapter may seem intimidating to the non-military or law enforcement professional, they are not. The tactics, broken down to their simplest components, provide basic guidance in movement and self-protection strategies that have the potential of furthering the likelihood of survival. As described in the chapter on mental preparation, once committed to the “will to survive” and a “warrior mindset,” the goal is for teachers and school professionals to feel empowered in their ability to adapt to a multitude of threatening environments.³⁸⁸ With preparations combined, mental and tactical, teachers and school staff will have more opportunity to implement Run, Hide, Fight practices efficiently.

³⁸⁷ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*, 6–3.

³⁸⁸ Ibid.; Air Land Sea Application Center, *Survival, Evasion, and Recovery: Multi-Service Tactics, Techniques, and Procedures for Survival, Evasion, and Recovery*.

V. CONCLUSION AND SUMMARY

Training teachers and school staff on defensive tactical decision-making will prepare them better to react to active shooter events. An options-based approach to active shooter protection strategies creates an opportunity to advance the safety of school children in the United States. By providing tactical decision-making processes, simplified for civilian populations, active shooter protection strategies can evolve to become more efficient. Despite regular iterations of advanced mitigation strategies dealing with the handling of school shootings, elementary schools need to advance their active shooter response strategy beyond the simple implementation of lockdowns.

Expecting teachers to protect in place is the simplest of all strategies and is riddled with potential concerns. Not all faculty and students will be in their classrooms when an event occurs. If trained in classroom lockdown drills alone, they will be potentially more vulnerable. Government agencies agree that teachers need more options beyond simple lockdowns. In *The Origin of Lockdown: Enduring Questions and One Man's Journey to Discover Where Lockdown Came From*, author Joe Hendry discussed a recommendation based on an Ohio task force assembled by the State Attorney General to look into school safety.³⁸⁹ The recommendation “encouraged a proactive, rather than passive response to active shooter.”³⁹⁰ Taken even further, Hendry emphasizes, “Not training everyone to respond as if their life depended on it is shortsighted, high-risk and does not align with the realities of an active shooter event.”³⁹¹

Many currently available opportunities can be provided to school staff to increase their active shooter preparedness. Unfortunately, no clear-cut one-size fits all approaches. During an active shooter event, lockdown may be the only option. However, any advanced training provides more opportunities to school staff.

³⁸⁹ Hendry Jr., *The Origin of Lockdown: Enduring Questions and One Man's Journey to Discover Where Lockdown Came from*, 8.

³⁹⁰ Ibid.

³⁹¹ Ibid.

This research has found many defensive tactics and tactical decision-making tools for elementary school settings. While found in military and law enforcement settings, the findings demonstrate basic principles of self-defense and decision-making in stressful environments. By training on and practicing the various components of the results, teachers and school staff have the potential of increasing possible survivability of active shooter events in elementary schools.

A. SUMMARY OF FINDINGS

Findings from the research fall into three general categories: pre-action, action, and re-action. Pre-action refers to the steps leading up to an event that establish the necessary mindset and confidence for survival, and create an awareness that carries over into the action phase. Action refers to the actual response to a threat. It is the tactical movements and techniques that potential victims implement to increase survival. Action also carries into re-action, and vice-versa as a feedback loop. Re-action means the reevaluation phase of the situation. It analyzes whether the actions taken are improving or worsening the tactical advantage. That analysis determines the next action. Again, a looped system takes seconds to process. Individually, the significant findings of the research are the following:

- Pre-action
 - School administrators empowering teachers to find success by any means necessary
 - Situational and area awareness
 - Commit to mission success
- Action
 - Do not delay
 - Be decisive
 - Move with a purpose
 - Put distance between self and threat
 - Cover over concealment

- Quick movements that maintain cover or concealment and provide a tactical advantage
- Re-action
 - Stay ahead of threat tempo by doing the least expected action
 - Stay flexible, adapt and overcome

B. PRE-ACTION

A major shortcoming of Run, Hide, Fight is the lack of mental preparation prior to an event. While it is necessary to not overly plan an escape, based on changing factors, mentally preparing for stressful situations has incredible advantages. Additionally, familiarizing oneself with surroundings and ongoing situational changes can have a dramatic impact on the likelihood of survival should an event occur.

1. School Administrators Empowering Teachers to Find Success by any Means Necessary

One who lacks strategic planning and underestimates the enemy will be captured.

~ Sun Tzu³⁹²

For many years, experts in the field of active shooters and school shootings have called for more options-based approaches to active shooter events in schools. Unfortunately, while advances have taken place, the full acceptance of varied approaches has not occurred in school settings. Possibly due to budgetary restrictions, liability concerns or the distraction of teaching young children to Fight, the necessary discussions and actions have not occurred. Moving forward, school administrators need to recognize the real threat of violence and empower their teachers to make good, situational-based decisions. Due to the changing threat environment, schools must adapt to stay ahead of the threat without causing a constant state of fear. Are parents more concerned that their child survived, or that the teacher followed the policy?

³⁹² “Sun Tzu’s The Art of War—Original, Accurate, and Complete Translation of All 13 Chapters—Translated by the Sonshi Group,” 12, Sonshi Ⓢ, accessed July 20, 2017, <http://www.sonshi.com/original-the-art-of-war-translation-not-giles.html>.

2. Situational and Area Awareness

One who is prepared and waits for the unprepared will be victorious.

~ Sun Tzu³⁹³

Situational awareness is a skill that once practiced and refined is ongoing. Many teachers do so without even recognizing it. What is intuition saying? Why does something not seem right? Teachers following their instinct and paying attention to what is going on can pay huge dividends. By identifying options available to them, the teacher and school staff can mentally log and build a playbook for if-then scenarios. For example, by recognizing the location of their classroom, their current position in the school, nearest exits, cover and concealment escape routes, safety zones, etc., teachers can maintain a running dialogue that is actionable in the face of a potential identified threat.

3. Commit to Mission Success

The important thing in doing battle is victory, not protracted warfare.

~ Sun Tzu³⁹⁴

Teachers and school administrators must commit to mission success. Commitment is a formal mental process and state of mind. The research demonstrates the incredible importance of this step in surviving stressful and threatening environments. Teachers must not accept failure as an option and must have the utmost confidence in their ability to survive and protect their children safe in the process. By adhering to the Situational Awareness Checklist (Appendix A), and The Active Shooter Dirt Dive (Appendix B) practices, teachers and school staff can better prepare themselves to have the confidence in approaching these scenarios.

³⁹³ “Sun Tzu’s The Art of War,” 5.

³⁹⁴ Ibid., 4.

C. ACTION

Run, Hide, Fight is the recognized best practice when responding to the threat of an active shooter. Unfortunately, the guidance lacks specificity. While it is important to remember to Run, Hide, Fight, it is critical to recognize *how* to accomplish each one of those responses. Implementing the steps inappropriately can actually lead those threatened into a higher risk situation. By implementing the steps accurately, and with supporting mental preparation and tactics, the chances of survival can be increased significantly.

1. Do Not Delay

When doing battle, seek a quick victory. A long battle will blunt weapons and diminish ferocity.

~ Sun Tzu³⁹⁵

Hesitation is the enemy of success. The research is consistent that teachers and school staff must not delay taking action to mitigate or evade an active shooter event. Do not assume that it is something other than the worst-case scenario. Do not delay action. Is it better to feel foolish or be dead? Hear what seems like a gunshot, implement immediate evasive action.

2. Be Decisive

The essential factor in warfare is speed.

~ Sun Tzu³⁹⁶

When analyzing, moving, or reacting to a scenario do not freeze. The research has shown that hesitating or simply doing nothing is deadly. When faced with a threatening environment, it is critical that teachers and school staff take action. Right or wrong, research shows inaction is not successful.

³⁹⁵ “Sun Tzu’s The Art of War,” 3.

³⁹⁶ Ibid., 14.

3. Move with a Purpose

Move when advantageous, stop when not advantageous.

~ Sun Tzu³⁹⁷

In such an environment, all movement is critical. If a particular move does not immediately improve or lead to increasing the teachers' overall tactical advantage, it should not occur unless absolutely no other option is available. While not hesitating, see the move, analyze the advantage, make the move, and reanalyze.

4. Put Distance between Self and Threat

To march over a thousand kilometers without becoming distressed, march over where the enemy is not present.

~ Sun Tzu³⁹⁸

Distance equals success. As found in the research, active shooter events in schools are typically short in duration. By immediately providing distance from the threat, potential victims dramatically increase their chances of survival. Every second counts.

5. Cover over Concealment

To be certain of safety when defending, defend where the enemy cannot
attack.

~ Sun Tzu³⁹⁹

The difference between cover and concealment is critical. Cover has to be the priority over concealment. As implied by the term active shooter, the threat is bullets. If potential victims are vulnerable to the penetration of gunfire, they are simply not safe. Concealment is temporary. Cover may also be temporary depending on the situation, but it is always better than concealment.

³⁹⁷ "Sun Tzu's The Art of War," 14.

³⁹⁸ Ibid., 7.

³⁹⁹ Ibid.

6. Quick Movements that Maintain Cover or Concealment and Provide a Tactical Advantage

Calculate the situation, and then move. Those who know the principles of the circuitous and direct will be victorious.

~ Sun Tzu⁴⁰⁰

Overall, actions in threatening environments need to be fast and result in an improved tactical advantage. As opposed to envisioning an entire route, potential victims should move from cover to cover quickly and concisely. These events come down to seconds, which can impact potential survival. If those threatened can continue to move, remain in cover, and provide distance from the threat, chances of survival increase.

D. RE-ACTION

With mental preparation engaged and tactically advantageous actions implemented, it is critical to reevaluate the situation regularly. As a highly dynamic event, active shooter environments are constantly changing. To maintain tactical advantage, which increases the likelihood of survival, actions must be reevaluated relative to the current and forecasted threat environment. By accomplishing this, those threatened have the tactical advantage of staying ahead of their attacker.

1. Stay Ahead of Threat Tempo by Doing the Least Expected Action

Attack where your enemies are not prepared; go to where they do not expect.

~ Sun Tzu⁴⁰¹

These events are competitions of who will win. Winning is survival. The attackers have the advantage of knowing what their plans are. Knowledge of intent puts those threatened at an immediate disadvantage. To compensate for this disadvantage, in addition to not delaying, being decisive and moving with a purpose, potential victims must gain any tactical advantage available. Pre-established evacuation routes and

⁴⁰⁰ “Sun Tzu’s The Art of War,” 9.

⁴⁰¹ Ibid., 2.

lockdown are the most likely action found in school systems. If the threat is familiar with school policies and procedures, then all the proposed actions and the specific details of each one may already be known to that threat. With an options-based approach, teachers and school staff have the flexibility to get ahead of the threat's operational tempo and gain tactical advantage.

2. Stay Flexible, Adapt and Overcome

When moving troops and calculating plans, be formless.

~ Sun Tzu⁴⁰²

Active shooter events are constantly evolving and highly variable. The research confirms that no one-size fits all approach exists in these situations. Initial plans may change with routes or conditions. It is critical that teachers and school staff not lock into any one solution. Instead, they should focus on remaining flexible, adapting to whatever the situation provides, and overcoming any current, new, or unknown challenges. This principle is the reason behind the recommendation by experts to establish options-based approaches and not try to provide a procedural approach to an event. Instead, the emphasis is to provide the tools for those involved to be successful and then give them the ability to use the tools as needed.

E. RECOMMENDATIONS

This research has shown that options-based approaches to active shooter events are necessary for elementary school events. Active shooter events are not linear. Preparation and response activities should not be linear either. Teachers and school staff need to be prepared and supported to make changes to standard practice. Additionally, teachers and school staff should be celebrated for their willingness to protect the students in their charge. While the research demonstrates detailed actions and ideas, the resulting recommendations summarize the steps necessary for schools to advance their preparedness.

⁴⁰² "Sun Tzu's The Art of War," 14.

- **Recommendation #1**—Provide training to teachers and school staff on options-based response to active shooter preparedness and response including defensive tactics and tactical decision-making.

This research provides defensive tactics and tactical decision-making available to school environments at little to no cost. The sources included provide further opportunity to establish new approaches to response and decision-making.

- **Recommendation #2**—Empower teachers through district policy to protect the children in their care by any means necessary.

Teachers and school staff need to be empowered to implement their training. Empowerment must be supported through policy to alleviate concerns over liability. If teachers make a tactical real time decision that taking their students out the window and into a nearby neighborhood to provide a safe haven from a shooter, they need to know that their ability to decide is supported.

- **Recommendation #3**—Establish reconnection procedures in the event of an incident.

With an options-based approach, reconnection procedures need to be developed. In the previous example of when teachers implement steps to protect their children, a process needs to be in place for them to reconnect to the school administration to provide a student count or roster and arrange transportation to a family reunification area.

F. RECOMMENDATIONS FOR FURTHER STUDY

Opportunities exist for further research regarding active shooter events. Most likely, the most complicated, and most significant, would be the psychological analysis as to why an individual would commit such an act. Additionally, research regarding target selection has inherent value. While school and workplace attacks are commonly understood targets, random active shooter targets are not. Depending on the willingness and reality of implementing the steps outlined in this document, research could evaluate the hurdles keeping school systems from evolving their protection measures. Research on

that topic could potentially assess cultural obstacles, political influences, and social ramifications. Regardless of the area of research, school-based active shooter events are a valuable topic, as the protection of youth is a globally accepted social priority.

G. CONCLUSION

I am a dad. I am not a law enforcement officer. I am not a soldier. I am a dad who is still scared, as I am sure all parents are, but whom now sees options to increase success—survival—in active shooter events. Through the research, I found many great resources that could easily be applied to a multitude of varied environments to increase survivability. Unfortunately, bureaucratic hurdles always seem to precede change. I feel confident that changes can and will be made based on the ever-evolving threat environment that this nation's schools face. The threat of active shooters in schools has not waned and is statistically increasing. The impact of these events in elementary schools is significant.

Many school systems have failed to adapt to the changing environment or have adapted portions of the needed steps. Emergency operations plans have significant value in overall school planning. Unfortunately, these plans often provide a false sense of security. Focus on preventing these events and having an overall school threat vulnerability analysis is critical. Identifying potential risks and intervening in advance is a daily process and significant step to prevention. Unfortunately, not all events stop at this stage. Individual schools not wanting to face the reality that it can happen and not preparing for it is unacceptable. School systems need to recognize the possibility of the threat, not dismiss the likelihood, be honest with their vulnerability, accept strengths and weaknesses, and find a way to improve.

By recognizing options-based approaches as an acceptable strategy, school systems have the potential dramatically increase the likelihood of survival. Lockdown should be an option, not THE solution. As a society, this country entrusts teachers with the daily protection of children. Why not empower them with the tools and opportunity to evolve that protection in an ever-increasing threat environment?

APPENDIX A. SITUATIONAL AWARENESS CHECKLIST

- o Am I in the proper “warrior mindset” today?⁴⁰³
 - o Do I have the “will to survive” and the will to protect my students?⁴⁰⁴
 - o Can I commit to mission success and refuse to accept defeat?
 - o Can I not delay, assume the worst and **act decisively**?
- o Has anyone given me cause for concern recently?
 - o Students?
 - o Co-workers?
 - o Parents?
 - o Other adults?
- o Did anything strike me as odd this morning while driving in or arriving on campus?
 - o Unusual cars?
 - o Unusual people?
- o What are the “weak points” of my school?
 - o Blind spots?
 - o Glass entrances?
 - o Fences?
 - Anything I can fix or recommend changing?
- o How close am I typically to those “weak points?”
- o What are the **nearest exits** to my classroom (or where I spend most of my day)?
 - o Primary
 - o Secondary (separate direction from primary)
 - o Tertiary (hopefully separate direction than both primary and secondary)
- o What do my escape path **options** look like?
 - o Are they identified but not committed to?
 - o Do I have multiples?
 - o Can I adapt and overcome if paths become unsafe or inaccessible?

⁴⁰³ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*.

⁴⁰⁴ Air Land Sea Application Center, *Survival, Evasion, and Recovery: Multi-Service Tactics, Techniques, and Procedures for Survival, Evasion, and Recovery*.

- o What type of **cover** or concealment is available while escaping or when hiding?⁴⁰⁵
- o What would hinder my and my student's escape to safety?
 - o Physical abilities of self or others?
 - o Locked doors?
 - o Location in school? (i.e., second or third floor)
- o How **fortifiable** is my classroom if I could not escape?
 - o Windows?
 - o Lockable doors?
 - o Large objects that could be moved to impede access?
 - o Smaller objects that could be placed to slow attacker movement?
 - o Areas large enough to accommodate hiding entire class?
- o What in my class can be used as a **weapon or distraction**?
 - o Extinguisher?
 - o Staplers?
 - o Vases?
 - o Stacks of papers?
 - o Pencils?
 - o Erasers?
 - o Anything!!
- o If moving between classes, or moving to another area of the school have I **reevaluated** my surroundings?
 - o Newly available, or better, exits?
 - o Different escape paths?
 - o Different concern areas?
 - o Different fortification options?
- o Am I willing to stay ahead of an attacker and do the least expected action whenever necessary to gain the **tactical advantage**?⁴⁰⁶

⁴⁰⁵ United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*.

⁴⁰⁶ Coram, Boyd: *The Fighter Pilot Who Changed the Art of War*.

APPENDIX B. THE ACTIVE SHOOTER DIRT DIVE

Adapted from the following and shown in Figure 15:

Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*

- “Get off the X”
- “Low crawl/high crawl”

United States Marine Corp, *Fire and Movement*.

- “I’m Up, They See Me, I’m Down”

United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*

- “Avoid danger areas”

Greene, *Anti-Sniper Awareness*; U.S. Army Asymmetric Warfare Group, *Sniper Awareness and Counter-Sniper Tips*.

- “Cover & concealment”
- “Defend your sector”
- “Anti-sniper lateral & angled movement”

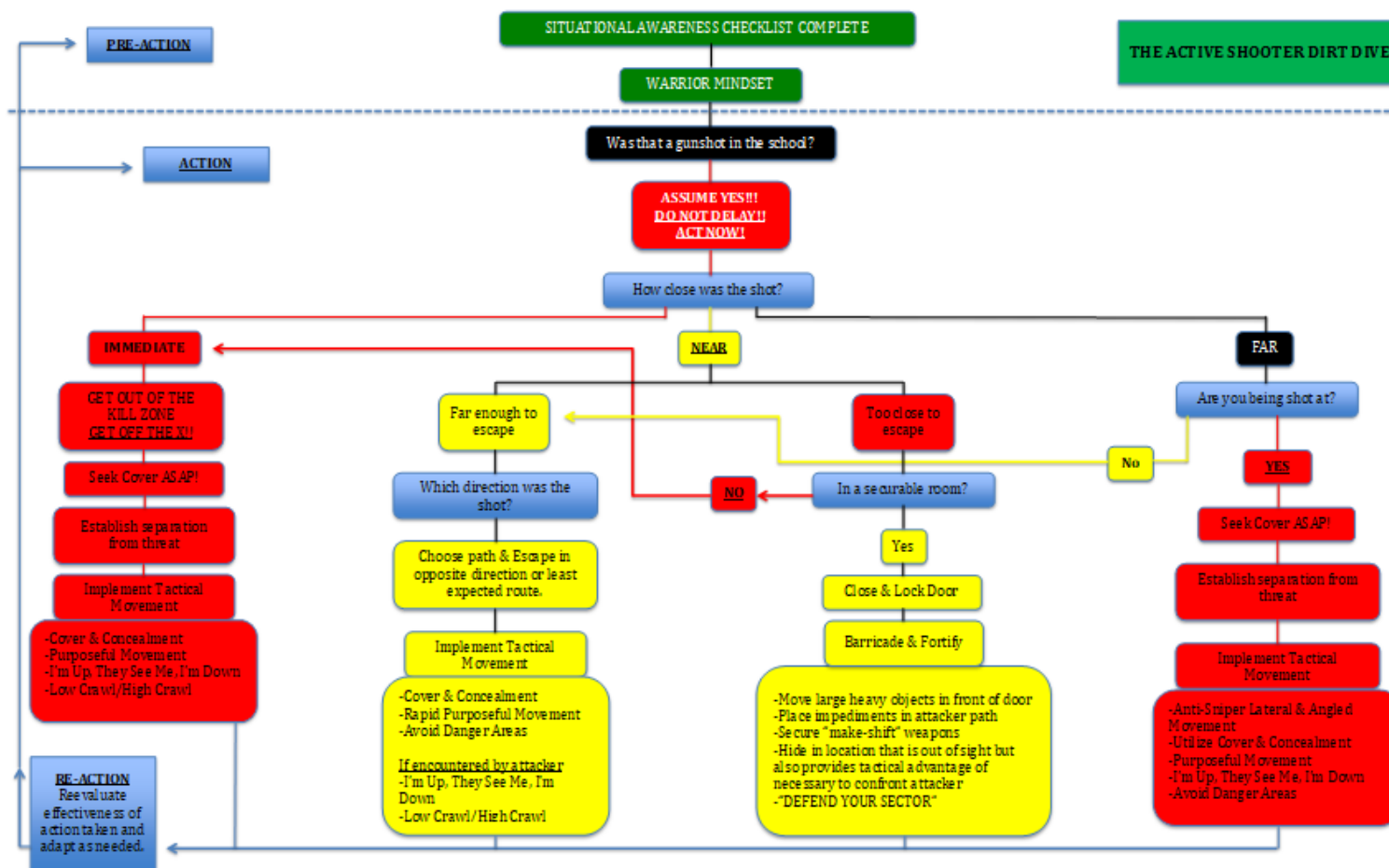


Figure 15. The Active Shooter Dirt Dive⁴⁰⁷

⁴⁰⁷ Adapted from Courtley, *SEAL Survival Guide: Active Shooter and Survival Medicine Excerpt (Ebook)*; United States Marine Corps, *Fire and Movement*; United States Air Force, *Air Force Tactics, Techniques, and Procedures 3-4.6 AS: Active Shooter (AS)*; Greene, *Anti-Sniper Awareness*; U.S. Army Asymmetric Warfare Group, *Sniper Awareness and Counter-Sniper Tips*.

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